ISSN—0566-2572

18 JAN 1990

University News

MONDAY, DECEMBER 25, 1989 Rs. 2.50

National Pattern of Education and Restructuring of Courses

●

What Ails the English Syllabus ?

●

The Secret of Teaching

●

Teaching Foreign Languages

●

Compulsory Iodisation of Salt

●

Homi Bhabha Fellowships

INDIAN INSTITUTE OF TECHNOLOGY MADRAS.

INVITES applications for the post of DEPUTY REGISTRAR in the pay scale of Rs. 1200-50-1300-60-1900 (likely to be revised). Total emoluments at present on the minimum and maximum of the pay scale are Rs. 4704/- and Rs. 6347/- respectively.

QUALIFICATION

1. A good Bachelor's Degree in Arts, Science, Commerce, Engineering or Technology of a recognised University.
2. A Post-graduate Degree or Diploma in any of the above fields or in Public Administration/ Management of a recognised Institute/University or its equivalent.

EXPERIENCE

A minimum of 10 years of relevant administrative experience preferably in a Government, Educational or Research Institute or in a commercial organisation of national standing. Out of this atleast 5 years should be in a responsible position (in the prerevised pay scale of Rs. 700-1300/700-1600). The candidates would be expected to have some familiarity with academic activities and working procedures in higher educational institution.

Candidates who are not found suitable for the post of DEPUTY REGISTRAR may be considered for the lower post of ASSISTANT REGISTRAR in the pay scale of Rs. 700-1600 (likely to be revised) at the discretion of the Institute.

The candidates should not be less than 40 years and should not be more than 50 years as on 01.12.1989.

Other things being equal, preference will be given to SC/ST candidates.

GENERAL INFORMATION/ CONDITIONS/INSTRUCTIONS

(i) Experience means experience gained after successful completion of the minimum qualification prescribed.

(ii) The prescribed qualifications are minimum and the mere fact that a candidate possesses the same will not entitle him/her for being called for interview.

(iii) The Institute reserves the right to restrict the number of candidates for interview to a reasonable limit on the basis of qualifications and experience higher than the minimum prescribed in this advertisement.

(iv) The Institute also reserves the right of rejecting any or all the applications without assigning and reasons therefor.

(v) Attested copies of certificates in support of claims in respect of age, qualifications, experience etc., should be sent alongwith the application failing which such claims will not be accepted and the application will be rejected. No correspondence with the applicant will be made in this behalf.

(vi) Persons in the service of Government Establishments, Public Sector Undertakings should apply through proper channel.

(vii) Canvassing in any form will be a disqualification.

For application forms, please address the Registrar, Indian Institute of Technology, Madras-600 036 with a self-addressed stamped (Re. 1.00) envelope (26 cm x 11 cm). The cover must be superscribed "Requisition for Application for the post of DEPUTY REGISTRAR". Completed applications with a crossed non-refundable Indian Postal Order of the value of Rs. 7.50 (Re. 1.90 for SC/ST) drawn in favour of the Institute payable at IIT Madras P.O. superscribing on the cover APPLICATION FOR THE POST OF DEPUTY REGISTRAR should be sent to the Registrar of the Institute.

The last date for receipt of completed applications is **19 January, 1990.**

Advt. No. IITM/R/12/89/
Dated : 05.12.1989.

REGISTRAR

18 JAN 1990

UNIVERSITY NEWS

VOL. XXVII DECEMBER 25
No. 52 1989
Price Rs. 2.50

A Weekly Chronicle of Higher Education published by the Association of Indian Universities

IN THIS ISSUE

National Pattern of Education and Restructuring of Courses

What Ails the English Syllabus? 7

Convocation

Bharathidasan University, Tiruchirapalli 11

News from Universities

Compulsory Iodisation of Salt 15

Seminar on Teaching Foreign Languages 16

Linking Varsities and Institutions 16

Librarians' Role in Dissemination of Information

Homi Bhabha Fellowships 17

Agriculture

International Workshop on Chickpea 17

Training Course on Weed Control 18

Grant for Hybrid Project at HAU 18

News from UGC

INSAT-1B Programme 19

Current Documentation in Education 21

Theses of the Month 22

Opinions expressed in the articles are those of the contributors and do not necessarily reflect the policies of the Association.

Editor :
SUTINDER SINGH

National Pattern of Education and Restructuring of Courses

M. L. Mathur*

Introduction

It has been long felt that the first degree courses in Indian universities need restructuring to make them serve better the cause of higher education which is useful to the society. This opportunity has been provided by the country uniformly adopting the national pattern of education, known as 10+2+3 scheme. In this scheme a student undergoes 15 years of schooling to get the first degree, i.e. one year more than in the old 11+3 or 10+2+2 scheme. The purpose of restructuring would not be served by merely transfering courses of postgraduate (previous) class to revised first degree courses. Instead, restructuring means total redesign of structure to remove the basic weaknesses in our present first degree education and bringing it to international standards and making it relevant to our living.

Academic Justification for National Pattern of Education

There is a lot of criticism in uninformed quarters that the national pattern of education, by adding one more year to schooling, wastes a valuable year of young people. But it may surprise many that the idea of 10+2+3 scheme is not new. As a major educational reform it has been on anvil for almost 70 years. It was first recommended by Calcutta University Commission (1917-19) to replace the then existing 10 (Matriculation) + 2 (Intermediate) + 2 (First degree) scheme, intermediate and first degree being part of university system. Two reasons for change were given :

1. That the intermediate stage was really a part of the school course and that the students at this stage could be more effectively taught by school methods than by those which were appropriate at the university stage.

2. That the standard of undergraduate education was so poor that the first degree in India was not really comparable to the first degree in the advanced countries. Therefore, the duration of undergraduate course should be increased to 3 years.

Both the above arguments are valid even in the present context.

All the subsequent educational commissions and committees supported 10+2+3 pattern of education. These included University Education Commission (1948-49) headed by Dr. Radhakrishnan, Secondary Education Commission (1952) headed by Dr. A.L. Mudaliar, Education Commission (1964-66) headed by Dr. D.S. Kothari and National Integration Committee (1964) headed by Dr. Sampurnanand. However, due to compulsions of economy, the scheme could not be implemented and instead, on the basis of Sargent Report (1944, *Post War Plan for Educational Development*), the only report which recommended a different pattern, 8+3+3 or 11+3, was adopted in the early 50s.

*Vice-Chancellor, University of Jodhpur, Jodhpur.

The 10+2+3 pattern was introduced in the 9th class, as late as 1975 by the Central Board of Secondary Education and it took another more than 10 years for all States to adopt it. The Kothari Commission had recommended that every effort should be made to vocationalize the 10+2 stage so that, ultimately, 50% of the enrolments at this stage would be in vocational courses. Very little (about 3%) has been achieved in the field of vocationalization. The present targets are 10% vocationalization by 1990 and 25% by 1995.

National Curriculum for Primary and Secondary Education

To provide all round development of a child through education, the National Council of Educational Research and Training (NCERT) have proposed the following framework of National Curriculum for primary and secondary education (1988) :

Disciplines	Primary stage Class I to V %	Upper Primary Class VI to VIII %	Secondary stage Class IX & X %
1. Language(s)	30	32	30
2. Mathematics	15	12	13
3. Science)		12	13
4. Social Science)	15*	12	13
5. Work Experience	20	12	13
6. Art Education	10	10	09
7. Health and Physical Education	10	10	09
Total	100	100	100

Note : In primary stage Science and Social Science is combined and is termed as "Environmental Studies".

About 30% of time is devoted to languages. Knowledge of language is necessary for expression of one's ideas. To inculcate scientific temper and logical thinking and analysis every pupil is expected to study mathematics and science throughout the school studies. Work experience not only instils dignity of labour but also develops self-reliance and self-confidence. Art education contributes to all-round development of child and provides medium of creative expression. Health education is essential for happiness and well-being of body and mind.

Basic Concerns of Educational Curriculum

The adoption of national system of education, 10+2+3 pattern, has given us an opportunity to look and evaluate our entire education curriculum scenario afresh from primary education through secondary education to tertiary education.

The basic aim of education is the overall development of an individual so that he becomes an informed, responsible and useful citizen. Mahatma Gandhi visualised education as a basic tool for the development of national consciousness and reconstruction of our society. In a vast and diverse country as ours education should consciously foster unity and integrity of the nation by exposing the students to the composite cultural heritage of our pluralist society. Education should serve as a forceful tool for character building and cultivation of social and moral values and for moulding the minds to accept the lofty principles of democracy, socialism and secularism enshrined in our Constitution.

The greatest polluter of our society is poverty. Education should include all those ingredients which would contribute to eradication of poverty and economic well-being of the people, like need for observance of small family norm, protection of environment (which is life-supporting system) and conservation of natural resources, acquisition of work stills and flair for entrepreneurship. No development worth the name is possible without the input of science and technology. Education must inculcate scientific temper and attitude and reject things based on superstition.

In modern times there is an explosion of knowledge in all fields. Therefore our education should be future-oriented. It is not sufficient for a young man to learn the present knowledge. In addition, special emphasis should be laid on 'learning how to learn'.

Further, education should develop in each pupil the art of creativity and original thinking which is the basis of advancement in all walks of life.

One of the main weaknesses of our traditional system of education is that it plays a negative role by cutting pupils off from roots of culture and environment and does not impart any skill, and therefore makes them unemployable. It may be recalled that more than 50 years ago Mahatma Gandhi advocated basic (on work-centred) education or learning

through doing, thus developing self-reliance, self confidence and habit of working by hands and respect for manual labour.

Restructuring of Courses at First Degree Level

The UGC guidelines on structuring of courses recommend that the courses at first degree level may have three components :

	Approximate weightage, %
(a) Foundation Courses	10-15
(b) Core Courses	70-75
(c) Courses of Applied Nature	15

Poona University has been a pioneer in restructuring of courses. They modified the UGC recommendation by adding two more components to the courses as given below :

Components	Weightage %	Training	Remarks
1. Foundation Courses	5-6	Brain	Mainly Cognitive (Intellectual)
2. Core Courses	65-69	Brain	
3. Applied Courses	16-17	Brain, Hand	
4. Vocational and Skill-oriented Courses		Hands, Heart (skills, values)	Preparing for world of work, dignity of labour, co-operation, discipline
5. Community Service and Personality Development Courses	10-12	Heart (Values)	

(a) *Foundation Courses*

With a view to creating greater awareness of oneself and of the social, cultural and natural environment, a study of foundation courses in the broad areas of knowledge should be introduced. The main emphasis in foundation courses should be on communication skills (command over languages), study of cultures and civilizations, inculcation of moral values and scientific temper, appreciation of the importance of science and technology in our daily life and study of main problems facing the society—poverty, population explosion, environmental degradation, position of women in society, etc. An illustrative list of foundation courses is given in Appendix I.

Each courses may not necessarily be undertaken by a student during all the three years. Some of the courses could be taken and completed in one year while others in two years. It may not be necessary that foundation courses should necessarily end with a regular examination.

The foundation courses should be started only after all the details including syllabi, work schedule, lecture programme, level of collaboration and interaction with other organisations and institutions in the city/region and other relevant details have been finalised by the institution concerned.

(b) *Core Courses*

Regarding organisation of core or conventional courses, instead of general and honours stream, only one stream may be kept which may be more like our present honours scheme. To run two streams of undergraduate course entails unnecessary expenditure without any academic advantage. Further, to call a degree 'honours' which has same duration and same number of papers as a 'general' degree is unsound. There should be a wide choice available in the 'core' courses. Core courses can be from two faculties. The female students should have choice of offering more than one home science subject as core subjects.

The UGC has recommended study of 2 or 3 subjects not necessarily confined in the same faculty, under core courses, to give the student an opportunity to acquire a broad familiarity of disciplines of his choice including study of atleast one of these subjects in depth. The syllabi of various courses may be determined both as a major subject and as a subsidiary subject, which may also incorporate field work, survey, extension and practical work, wherever necessary in the course content.

(c) *Courses of Applied Nature*

The courses offered as a part of application oriented subjects may not necessarily be the same as in Agricultural and Technological universities and may be introduced with a view to familiarising the students with that subject and equipping him with skills/techniques which may help him in finding an employment with the local industries or start his own venture/self employment after graduation. The application courses should not be introduced with the intention of enabling the students to take up postgraduate studies in such subjects.

Application courses should be an important component of the new degree course. Many of the pupils

come from rural background. Application courses for them should include subjects on agriculture and agricultural products, land management, water management, sheep and wool, tannery, forest and forest products, animal breeding, dairy, rural industries, handicrafts, etc. Many persons join services as clerks, typists, accountants, salesmen, etc. Suitable application courses for them could be office management, hotel management, secretarial service, English and Hindi stenography and typing, accountancy, marketing, etc. Application courses have to be region-specific and have to be selected after proper survey. For example, in Jodhpur region, textile dyeing and printing could be an application course.

An illustrative list of application courses is given in Appendix II. Hard working and brilliant students may offer an additional optional application course.

In teaching these application-oriented courses it may not be necessary to provide full-time faculty for teaching all the papers. The expertise available in other institutions and industries should be utilised by inviting them to deliver lectures as visiting faculty.

The universities should be encouraged to run post-degree one-year job-oriented diplomas. Those who wish to work extra can get the same training in a regular degree course by offering an additional optional subject in each of the three years of the degree course. If the job-oriented diploma course is not completed in 3 subjects, remaining courses of the diploma can be covered in one or more 'summer term' utilising summer vacations. Courses on 'preparation for competitive examinations' can also be offered during summer term.

(d) *Community Service/Personality Development Oriented Courses*

An illustrative list of community service/personality development oriented courses is given in Appendix III.

Analysis and Detailed Planning of Restructuring of Courses

The restructuring of courses in isolation will not yield the desired results. Other policy decisions like working days, teaching hours, methods of teaching and delinking of jobs with degrees are intimately connected with reform in structuring of courses.

(a) *Limited Entry to Higher Education*

The remarks of Calcutta University Commission (1917-19) that standards of the first degree in India are lower than in advanced countries still holds good today. In all advanced countries of the world a student enters the University at the age of 18+ and the first degree course extends over a period of three years and in some cases even upto four years. Only those who are academically brilliant go for higher education and, therefore, unemployment of university products is of very small proportion. In India, because of the poor standard of the first degree, particularly in the faculties of Arts and Social Sciences, part-time studies are sufficient to pass the first degree examination. Therefore pupils take the first degree casually and many, irrespective of their academic attainments, take the examination as regular (mostly in name only) or private candidates. It is because of the use of the degree which has become a passport for getting even the lowest job, that people are mad after them.

It is, therefore, necessary to break this link between degree and jobs at subordinate level. All jobs at this level should be delinked with degrees and notified with the skills required which can be imparted at +2 stage of 10+2 level and the selection should be through a competitive test for knowledge and skills without any preference for graduate degree. Going a step further, holding of a degree may even be considered as a disqualification for these jobs.

Graduation through private stream should be disallowed except for women and other categories who suffer deprivation of normal opportunities. This ban would be justified because alternative route to higher education is now available through open university system. However, open university system should be made cheaper to be within reach of common man. If the standards of first degree are high so that it is not possible to get through the first degree examination without a regular course in a conventional or an open university, it would automatically discourage private candidates. This would also reduce the problem of unemployment and underemployment of degree holders.

(b) *Working Hours and Working Days*

Lower standards of first degree give rise to small number of working days and working hours in institutes of higher learning. In secondary schools atleast 200 days in a year are expected to be available for effective instruction. In colleges and universities the UGC has prescribed minimum 180 teaching days in a

year. Unfortunately even in good institutions it is around 120 to 140 days. It is necessary to revamp the system and in this effort teachers and administrators have to play equally important role.

The scenario does not end with a small number of working days. The disease percolates deep with small number of contact hours per day. In schools 5 hours of instruction work is done per day, i.e. 30 hours per week. For higher education UGC has recommended maximum 30 contact hours (40 periods of 45 minutes duration) per week so that time is available for self study/tutorials/seminars, etc. For minimum workload on students, no specific figure is given, but it is mentioned that it *should be enough to keep a student busy*. In my opinion minimum workload should not be less than 75% of the maximum workload, i.e. 30x0.75= 22.5 clock hours (30 periods of 45 minutes duration) per week. In the present system, atleast in the Faculty of Arts, workload does not keep a student sufficiently busy.

In our present system, workload for students is minimum in the Faculty of Arts (as low as 18 clock hours or 24 contact periods of 45 minutes duration), intermediate for Faculty of Commerce and maximum for Faculty of Science. Where there are practicals the contact hours have to be more but there seems to be no valid reason for different contact hours in the faculties of Arts and Commerce.

(c) *Number of Papers*

A lower number of papers also contributes to lower standards, selective study and chance passes or failures. In the absence of continuous evaluation or mid-term tests, larger the number of papers, better is the evaluation. Further, the design of question papers should be such as not to give credit to rote memory and reproduction of facts but to give credit to problem solving skills and self study.

Proposed Teaching and Examination Scheme

Based on the arguments developed above, the following scheme is recommended for each year of the new three year degree course.

Component	No. of Courses	No. of Papers	*No. of Periods Per Week	Marks
(a) Foundation Courses	1	1	4	100
(b) Core Courses	FY/SY/TY 3/2/ 2	6+ practicals	24 (No practicals) or 30 (18T+12P)	600
(c) Application Courses	1	1	4	100
(d) Community Service/ Personality Development Courses	1	—	2	Gr
(e) Additional Optional Courses	1	1	4	100
Basic Total (excluding d & e)	5/4	8+P	32 (No practicals) or 38 (with practicals)	800
For three years Basic Total (excluding d & c)	13	24+P		2400

*Periods of 45 minutes duration. FY=First Year, SY=Second Year, TY=Third Year.
T=Theory, P=Practical.

Note : In Core Courses having practicals, 30 periods (18 theory+12 practical) per week (instead of 24 periods) be provided making the total periods per week 38. With an additional optional course maximum periods would be 42 periods of 45 minutes duration.

The above sort of workload on students will engage them fully and usefully and studies for first degree will not be a part time affair.

Conclusion

With the introduction of national pattern of education, there is urgent need for restructuring of courses. There should be a national consensus on upgradation of courses and making them more relevant to societal living and improving quality of life. A beginning can be made by all the universities of a state coming together and evolving a common suitable structure of new three years degree courses.

APPENDIX I

Illustrative List of Foundation Courses

1. Language (To develop communication skills)
2. Social and Cultural History of India/Asia
3. Science and Society
4. Evolution of Life
5. Development of Scientific Ideas
6. Population, Health and Nutrition Education
7. Environmental Studies
8. Women's Studies
9. Growth of Moral and Spiritual Ideas
10. Basic Features of Indian Constitution
11. History of Freedom Movement in India and National Integration.

APPENDIX II

Illustrative List of Applied Courses and Additional Optional Courses

1. Land Management
2. Water Management
3. Forest Resources and their Utilisation
4. Bio Energy
5. Agriculture Mechanisation and Marketing
6. Food Preservation and Vegetable Production
7. Dairy Science
8. Live Stock and Leather
9. Sheep and Wool
10. Rural Industries and Handicrafts
11. Agricultural Economics
12. Horticulture and its Management
13. Integrated Rural Development
14. Stenography and Typewriting
15. Secretarial Practice
16. Office Management
17. Financial Management
18. Management of Co-operative Societies
19. Human Resource Management and Labour Welfare
20. Theory and Practice of Management
21. Tourism and Hotel Management
22. Garment Production and Export Management
23. Public Administration.
24. Book Keeping and Accountancy (For Non-Commerce Students)
25. Statesmanship and Advertising
26. Journalism
27. Photography
28. Library Science
29. Entrepreneurship
30. Insurance
31. Applied Statistics
32. Translation Skills
33. Home Economics
34. Developmental Planning
35. Industrial Chemistry
36. Textile Dyeing and Printing
37. Geology and Mining
38. Computer Applications
39. Environmental Pollution
40. Energy Studies
41. Applied Electronics and Communication

APPENDIX III

List of Community Service/Personality Development Oriented Courses

1. Games and Sports/Yoga
2. National Cadet Corps (NCC)
3. National Service Scheme (NSS)
4. Dramatics
5. Oratory
6. Fine Arts
7. Adult Education Programme
8. Rovers and Guides
9. Other Community Service Programmes.

TO OUR READERS

Knowledgeable and perceptive as they are, our Contributors must not necessarily be allowed to have the last word. It is for you, the readers, to join issues with them. Our columns are as much open to you as to our contributors. Your communications should, however, be brief and to the point.

WHAT AILS THE ENGLISH SYLLABUS ?

Man Mohan Lal*

A syllabus of a subject may be regarded as a manifesto. It is not only a plan of action but also a contract between a teacher and a student. It requires honest and sincere execution. It regulates input as well as output of a subject. Any deviation from the syllabus or negligence in achieving the set goal should be considered a breach of contract. Therefore care should be taken while making syllabi of different subjects. If they are faulty *ab initio*, the whole pedagogical system tends to be incompetent. If we study the syllabi of our universities we won't fail to notice that they are so vague and confusing that we can't expect any standard and specific teaching performance at a particular level. Here is a study of a typical syllabus which may tell us what ails the syllabi of our universities.

This paper attempts a syllabus analysis of English Language in the Foundation Course of B.A. Part I of Kanpur University. The long-awaited three year degree course commenced in Kanpur University in 1987. The foundation course consists of three papers of 50 marks each. In the first year the paper of language offers option between Hindi language and English language. The syllabus of the latter reads asunder :

(1)	Precis and Comprehension	15 Marks
(2)	Translation from Hindi to English and from English to Hindi	10 Marks
(3)	Idioms and Transformation	10 Marks
(4)	Application/Letter Writing	10 Marks
(5)	Correction	5 Marks

Drawbacks and Inadequacies of the Syllabus

(1) Time allocation for coverage of the syllabus is not given.

(2) Objectives of the course have not been made clear.

(3) Topics and Sub-topics are not clearly defined with respect to their depth. Hence they are interpreted differently by teachers, paper-setters, and examiners. Their depth is measured in terms of allotted marks.

(4) There is no connection of the syllabus with those of other subjects; it does not indicate its further application either.

(5) No details regarding evaluation of students' learning are given.

(6) Skills/abilities to be developed by the students at the end of their learning experience are not specified.

Analysis of the Syllabus

(1) *Precis-Writing and Comprehension*

Precis writing requires precision of expression and clear comprehension of the given passage. It demands sound vocabulary and correct use of verbs. Therefore it should come after transformation and correction. Comprehension though a prerequisite in precis writing, is basically a different skill. Its combination with precis-writing is confusing. It does not make clear what the question pattern of comprehension will be.

(2) *Translation*

Since the University may have students from non-Hindi speaking areas too, care should be taken to make the syllabus widely adaptable to all types of students. The inclusion of translation item seems to be abrupt and vague. The students are expected to learn Hindi without any help. Translation is a technical process of changing the language without changing the sense or real meaning conveyed in the original piece. A comparative grammatical structure of both the languages should be taught first. The idiomatic equivalents should be given to the students. They should learn the current usage, slang and cliches.

(3) *Idioms and Transformation*

It is ridiculous to have these two units combined together. They have no connection with each other. Transformation is a syntactic process. It may be combined to the unit of correction as both deal with the same grammatical rules and usage. Idioms are the part of vocabulary. They may be helpful in translation but in no case are they homogeneous to transformation.

*English Department, Bharatiya Mahavidyalaya, Farrukhabad-209 625 (U.P.).

(4) *Application/Letter Writing*

The skill of letter writing is as refined as precis writing. It requires many subunits for its background such as paragraph writing and reporting. No provision has been made to create a real situation in order to motivate the student to learn automatically.

(5) *Correction of Sentences*

This unit puts the cart before the horse. Syntax holds the first place in the grammar of any language. How can we expect a student to write correctly or translate a piece of his mother tongue into English without first understanding the English usage and syntax ?

(6) *What the Syllabus Misses*

The syllabus is incomplete as it lacks some important units which may otherwise make it perfect. These units are :

(A) Vocabulary
(B) Direct and Indirect narration
(C) Expansion or paragraph writing

The syllabus can also be analysed on the basis of coefficient clarity questionnaire. Analysed thus it gives 23% over all coefficient of clarity. It is slightly more than 0.20 which is the minimum value. It is quite evident that the syllabus is only slightly clear.

Suggestions for Improvement : A Plan of Action

Keeping in view the above analysis, it is suggested that :

(1) Precis writing and paragraph writing be treated as the final ability to be achieved by the students at the end of first year of B.A. course. All other items are to be introduced as preparation for precis writing and paragraph writing. Letter and application may also be combined with this skill.

(2) Translation should form the half of this paper. Some sub-units be associated with translation so as to teach the students the skill of translation. A comparative grammatical structural difference between both the languages be made known to the students. The idiomatic equivalents be given. Current usage, idioms, slang and cliches be included in vocabulary.

(3) This syllabus be divided into two parts : alongwith the sub items to be clearly explained :

(A) *Skill of Composition* 30 Marks

1. Vocabulary (2)
2. Syntax and Usage (Correction of Sentences) (3)
3. Transformation of sentences (3)
4. Condensed expression (2)
5. Precis Writing (10)
6. Expansion/Paragraph writing (5)
7. Letter and Application writing (5)

(B) *Skill of Translation* 20 Marks

1. Hindi meaning of English words (1)
2. Equivalents of Hindi and English idioms, phrases, slang expressions, cliches etc. (2)
3. Comparison between English and Hindi grammatical structures (2)
4. Translation from Hindi to English (10)
5. Translation from English to Hindi (5)

(4) A scheme of evaluation be specified.

(5) Outlines of classroom activities, students' activities and guidance to direct teaching, learning and testing process be provided by specifying the goals and objectives in terms of students' behaviour.

(6) Time required to complete the teaching process for each unit as well as its sub-units should be mentioned.

(7) The quantum and the nature of knowledge, abilities and skills to be developed should be clarified.

Thus, the syllabus can be rewritten as follows :

University : Kanpur University
Class : B.A. (Three Year Degree Course)
Year : 1st Year
Syllabus Title : Foundation Course—English Language
Teaching Time Required : 100 Hours (150 Periods)

Aim of the Course

To develop the ability to express precisely and expand a given idea. It also aims at teaching the

skill of translation from English to Hindi and from Hindi to English.

The Restructured Syllabus

Items		*Teaching Periods**
1.000	**Precis-writing and Expansion (Introduction)**	1 Pd.
1.100	**Vocabulary** (1000 words clearly given according to the following divisions) (Introduction)	1 Pd.
1.110	Compounds—Introduction	1 Pd.
1.111	Prefixes in English Compound Words (300) e.g. words beginning with in-, un-, ex-, anti-, co-, extra-, non-, pre-, semi-, de-, be-, fore-, etc.	3 Pds.
1.112	Suffixes in compound words (100) e.g. words ending with -less, -ness, -like, -worthy, -er, -en, etc.	1 Pd.
1.113	Noun+Noun Compounds (100) e.g. fruit-cake, cherrybow, carload, cornmeal, bedrock	1 Pd.
1.114	Adjective+Noun compounds (100) e.g. hotplate, redhead, bluebird	1 Pd.
1.115	Verb+Noun compounds (100) e.g. pickpocket, turncoat, turntable, cureall	1 Pd.
1.116	Compound adverbs e.g. barefoot, sight-unseen, lightheartedly, dupstairs, owntown.	1 Pd.

*One period consists of 40 minutes; in all 150 periods will be allotted to this syllabus.

1.120	Synonyms (100 words)	1 Pd.
1.130	Antonyms (100 words)	1 Pd.
1.140	Spelling rules	1 Pd.
1.200	**Correct Use of Verbs** : Introduction	1 Pd.
1.210	25 Verb—Patterns as given in A.S. Hornby's *A Guide to Patterns and Usage in English*	5 Pds.
1.211	Distinction between Indian and English Usage	1 Pd.
1.300	**Transformation** : Introduction	1 Pd.
1.310	From complex to simple and from simple to complex	2 Pds.
1.320	From compound to simple and from simple to compound	2 Pds.
1.330	From Active to Passive and from Passive to Active Voice	2 Pds.
1.340	Changing degree of adjective without changing the meaning of a statement	2 Pds.
1.350	Changing direct statement into indirect narration : Introduction	1 Pd.
1.351	Simple Statements	2 Pds.
1.352	Questions : Yes/No questions and Information questions	3 Pds.
1.353	Imperative Sentences	3 Pds.
1.354	Exclamatory and optative sentences	3 Pds.
1.355	10 Exercises as class-work	5 Pds.
1.400	**Condensed Expression**—Introduction	1 Pd.
1.410	One word substitution	2 Pds.
1.420	Condensing a sentence by :	
	(a) making it simple with only one main verb, and	2 Pds.
	(b) avoiding unnecessary words, repetitions and long idiomatic expressions	2 Pds.

ASSOCIATION OF INDIAN UNIVERSITIES

UNIVERSITY NEWS

A Weekly Chronicle of Higher Education

Subscription Rates

	Inland		Foreign	
	Institutions Rs.	Teachers & Students in India Rs.	Air Mail	Surface Mai
1 Year	80	60	US $ 80	US $ 50
2 Years	150	110	$ 150	$ 90
3 Years	200	150	$ 200	$ 125
5 Years	300	225		

Single Copy : Rs. 2.50

Subscription is payable in advance by Bank Draft only in favour of Secretary, Association of Indian Universities.

Advertisement tariff available on request.

Address Subscriptions & Enquiries to :

Under Secretary (Publications)

Association of Indian Universities

AIU House, 16 Kotla Marg

New Delhi 110002.

1.500	**Precis-Writing** : Introduction	2 Pds.
1.510	Reading Comprehension	2 Pds.
1.520	Cutting out repetitions, examples and illustrations, quotations and anecdotes, metaphors and other superfluous points	2 Pds.
1.521	Discrimination between the language of precis and the telegraphic language. How to observe economy of words.	2 Pds.
1.522	15 Exercises to be done as Class-work.	15 Pds.
1.600	**Expansion/Paragraph-Writing**—Introduction	1 Pd.
1.610	Writing 5 sentences on a given topic or proverb	2 Pds.
1.620	Giving logical coherence to the sentences	2 Pds.
1.630	Elaborating 15 Points as Class-work	5 Pds.
1.700	**Letter and Application Writing**—Introduction	1 Pd.
1.710	Kinds of Letters—Formal and informal ; form and structure; register of language	1 Pd.
1.711	Formal letters—Applications, business and official correspondence : some examples	5 Pds.
1.712	Informal letters—To friends and relatives; different situations; some examples	5 Pds.
1.720	How to begin a letter? Some ready-made phrases frequently used in correspondence	1 Pd.
1.730	10 Letters as assignment practice	5 Pds.
2.000	**Translation**—Introduction	1 Pd.
2.100	Hindi meaning of English words	2 Pds.
2.110	Technical Terminology (Hindi and English)	2 Pds.
2.120	Hindi meaning of every-day-life English words	2 Pds.
2.200	Hindi equivalents of English idioms and phrases	2 Pds.
2.210	Hindi equivalents of English slangs	2 Pds.
2.220	Hindi equivalents of English Clichés	2 Pds.
2.300	Discrimination between English and Hindi grammatical structures—Introduction	1 Pd.
2.310	Comparative sentence structures	3 Pds.
2.311	Comparative structure of voices—Active & Passive	2 Pds.
2.312	Comparative structure of complex, compound and simple sentences	2 Pds.
2.313	Comparative uses of verbs	5 Pds.
2.314	10 Examples	10 Pds.
2.400	10 exercises of translations to be done by the students as class-work	10 Pds.

Note : A textbook should be prepared which may help the teacher and the students. Students may also be involved in tutorials and seminars etc.

Abilities to be Developed

(1) Ability to comprehend English
(2) Ability to precise a given passage
(3) Ability to expand a given idea
(4) Ability to translate from English to Hindi
(5) Ability to write letters formal and informal.

Methods of Teaching/Learning

(A) Lectures and discussion
(B) Exercises to be done as class work and home-work
(C) Audio-visual aids to be used in teaching the real use of language.

Statements of Instructional Objectives

(1) When called upon the student will be able to recall the meanings of words.
He will be able to :
(2) analyse a word in terms of derivatives, prefixes and suffixes,
(3) correct the mistakes in a given sentence.
(4) transform one mode of statement into another as required.
(5) substitute many words with one word,
(6) condense a large statement into shorter one,
(7) comprehend a given passage and answer in brief the question asked about the same passage.
(8) make a precis of a given passage,
(9) elaborate proverb or an idea of common interest,
(10) translate a piece of English into Hindi,
(11) write letters of everyday importance.

Method of Evaluation

(1) Informal observation in the classroom; participation in classroom discussions, raising doubts, answering questions.
(2) Assessment of assignments.
(3) There will be two parts of the examination paper in this syllabus :

I. Totally Objective—25 Marks—1 Hour

It will consist of 100 multiple choice questions; one mark will be allotted to 4 questions. These questions will be based on all the different items of syllabus excluding only items nos. 1.500-22, 1.600-30, 1.700-30, 2.300-400.

II. Totally Composition Type—25 Marks—2 Hours

This part shall consist of composition and translation questions. It will include nos. 1.500-22, 1.600-30, 1.700-30 and 2.300-400 only.

□

THE SECRET OF TEACHING

"The essential truth about teaching, however, is that it is a one-to-one encounter. Even when a teacher speaks to a large class, the spark of success is lit when the individual student sitting in the midst of a large number of others like to believe that the teacher is addressing him and others, even if present, are there only by accident. Otherwise too, what is being said is addressed to him and to him alone. This is the secret of teaching", observed Hon'ble Shri E.S. Venkataramiah, former Chief Justice of India while delivering the Convocation Address at the Sixth Convocation of the Bharathidasan University, Tiruchirapalli. Excerpts

As the universally accepted, the key to the success of any educational system is the capability and commitment of the teachers that man it. This is true at every level of education, from the nursery to the highest level.

While in our country, we have certainly made striking advances on a number of fronts, including the front of education, this is not enough reason to ignore what we have failed to do. While it is customary to talk about the slow growth of literacy in our country, and it is without question a serious failure on our part, I would like to say that our bigger failure has been our inability to attract into and retain the right kind of persons in the profession of teaching.

Convocation

Part of the explanation derives from the fact of our colonial heritage in education. When the East India Company got involved in the spread of education in India in those early years of the 19th century, it took two important decisions both of which are still with us and have caused untold problems.

One was the decision to use English at the higher levels. In saying so I am not trying to argue against the continuity of English. In the circumstances that now prevail, perhaps, it could not have been otherwise. But there is one aspect of the problem which does bother me.

Was it a part of the pattern not to develop our own languages? I am not so sure. I see no conflict between our continuing to use English and developing our own languages. The only point of contention is in regard to the link language.

Our use of English language as a vehicle of communication and scholarship need not come in the way of using our languages in our respective spheres. The fact that we are not doing so is a cause for disquiet. This whole issue is a wide ranging and complex one and I would not like to say anything more about it, except to underline the importance of developing our own languages, so as to enable them to become in turn the vehicles of communication as well as of scholarship.

The second crucial decision taken around that time was what later on came to be known as the filtration theory of education. It was assumed that education when given to top people would gradually filter down to the masses also. That has not happened for reasons into which we need not go.

What I wish to say is that this theory is, to some extent, still with us. In the contemporary period it has taken the form of the neglect of elementary and adult education. There is so much to be said on this theme that for the next few minutes. I could talk on it and still not come to the issue which I wish to discuss with you. That is why I would like to leave this discussion here and move on to what I consider to be the most important problem, how to have better and more competent teachers in the teaching profession.

Somebody might even raise the question whether teaching is as distinctive and well defined a profession as several others, such as medicine or engineering and so on. My answer to this question is that teaching is a profession no doubt, as much as any other profession is. But it has not yet fully developed, those characteristics which a real profession should have. You might very well ask what those characteristics are.

According to me they are three. First of all there has to be a long and well-organised process of preparation and training. Secondly, there has to be a distinct sense of professional competence and pro-

fessional pride. Thirdly, no profession is a profession in the proper sense of the world unless a good part of the satisfaction in doing the job comes from a feeling that it has been done. There must be a sincere commitment to the profession. This is not to suggest that the aspect of remuneration is unimportant. Far from that. But it is not so important as to overshadow the other aspect—our sense of satisfaction which a good professional gets when he has done the job as it ought to have been done. As you will see for yourself, the third aspect is closely linked with the second aspect. Pride in one's profession can come only when there is a sense of fulfilment in having done the job competently and to one's satisfaction.

On each one of these counts, the profession of teaching as practised so far, does not fully measure up to the expectations from it to a large extent. Since I am addressing a university audience, the first issue to be considered would have to be in respect of what happens at this level. But please permit me to state that my concern is with teaching at every level. While the situation at the university and college level is on the whole satisfactory, what happens at the elementary and secondary levels is not only unsatisfactory, it is deplorable.

Even at the college and university level, it was only in the early seventies that the profession was made somewhat attractive. The latest revision carries that process further. While it is indeed gratifying, I do wish to say that what we did in the early seventies should have been done earlier and was late by approximately two decades.

We should have made teaching attractive soon after we became independent. That would have attracted the better kind of persons into teaching. What we did was to recruit a large number of persons with questionable or doubtful ability into the profession. When we felt dissatisfied with what they were doing, we revised the emoluments upwards. While all of them are better paid today than they were some years ago, it would be difficult to say that they are also performing better than before.

Seen another way, we are now certainly attracting more competent people into the profession of teaching but it would be a couple of decades before those who joined the profession some time ago give way to the new recruits. Till then the situation would perhaps continue to be unsatisfactory.

This is what has happened in respect of university and college teaching. At the lower levels, the situation continues to be unsatisfactory. Emoluments are not at all attractive and, therefore, we do not get the right type of teachers.

Speaking for myself. I am greatly worried about this. In education, almost everything depends upon the quality of teachers. If they are not of the right quality, what they do or, more precisely, what they fail to do, is a serious matter. Anyone who knows the countryside knows what kind of schools we have and what facilities are available. More than one third of them are one-teacher schools which by any mode of reckoning is an unsatisfactory situation. It is not my purpose to provide details here. These are available in the document entitled 'The Challenge of Education' published in 1985 and the two documents in regard to the New Policy on Education, published in 1986.

I have referred to this matter at some length, for I have no doubt in my mind that our country would grow and prosper to the extent that our educational system becomes stronger and more and more attention is paid to the instruction and training of the young and not so young. In order to achieve this objective, we have to have more competent and more committed teachers.

It goes without saying that the ethos of work which prevails in our institutions is also an important factor. While better paid teachers are not exactly an answer to this problem, better trained teachers can certainly make a difference. This refers to the very first requirement of a good professional—what I described a long and well-organised process of preparation and training.

While some attention has been paid to this problem both at the Centre and State levels, it appears to me that we have to pay much more attention to it than we have done so far. Striking advances in the art of teaching have been made during recent decades. We understand the process of cognitive learning much more than we ever did before. While we have benefitted from these researches to some extent, I am afraid we have not done as much we could have done.

This is a task where the State governments can play a very decisive and innovative role. Quite a number of them have established State Institutes of Education and Training and taken several other connected steps. All this is welcome. I also welcome the initiative of the University Grants Commission to have established quite a number of Academic Staff Colleges. Whatever is being done is in the right direction. But what I plead for is much greater

effort and much greater involvement on the part of everybody concerned.

I do not wish to dwell on this theme much longer in a university which was established not so long ago and which commemorates the memory of one of the great sons of India. What is important to emphasize is that education, as organised today, is essentially a social enterprise. While all learning is individual, the attempt to impart learning is by and large social. That is because in today's world education is no longer an individual enterprise, as it was at one time. Instead it has become a formal undertaking in which students have to be admitted, teachers have to be recruited, administrators have to be appointed, grants have to be given and a dozen other things to make the enterprise of education possible have to be done. In consequence the individual initiative gets depreciated and the formal part plays a dominant role.

The essential truth about teaching however, is that it is a one-to-one encounter. Even when a teacher speaks to a large class, the spark of success is lit when the individual student sitting in the midst of a large number of others like to believe that the teacher is addressing him and others, even if present, are there only by accident. Otherwise too, what is being said is addressed to him and to him alone. This is the secret of teaching.

To the extent that some of you present here can practise it and others of you present here have participated in that process, you have achieved that minor miracle of one-to-one encouter which, if I may say so, is what teaching is all about. It is on these words of my personal perception that I would like to conclude on this aspect of the question.

Since this University is almost in a rural setting, I would like the young students to give attention to three things : rural housing, rural sanitation and cleanliness of rural houses. Sound education is possible only in a healthy surrounding. Today, in India at least about 15% of the population is homeless. Thus every village needs an additional 15% of the total number of houses in it. Government and public should make an attempt to increase the number of houses in villages and encourage house building activities in all villages which will provide employment to almost the entire skilled, semi-skilled and unskilled labour in the villages. It indirectly increases the purchasing power of the rural workers and artisan leading to increasing demand for consumer goods which will increase the activity of production throughout India. This does not involve any foreign exchange. This would also prevent people from moving into cities in large numbers. What should be done is that for every 20 or 30 villages a rural industrial centre which will supply all the necessary goods required for construction of houses and others should be set up which may ultimately turn out to be a rural industrial centre.

Friends, you know the sanitary conditions in the villages. There are no latrines in many houses. The shameful way in which our people have to conduct themselves near about villages is well-known. More than the cleanliness of the rural homes, the need for people to live with cattle in insanitary conditions is also well known. Can we not do something to improve the conditions of rural life and to remove the avoidable drudgery from which the women folk are suffering ? I want every State Government to come in a big way to finance the rural housing and also rural roads. I request the Tamil Nadu Government to take the lead in some of these matters which may make the life of villagers more comfortable and improve the rural environment. The houses constructed may be given to the people on lease-cum-sale basis. This is one suggestion which I propose to make for your consideration which if accepted, will make us all happy. □

Attention Publishers !

CONCESSIONAL TARIFF FOR BOOKS

University News has decided to offer concessional rates for advertisements pertaining to Books and other reading material. You can now book panels/display advertisements as per your requirements at per cm per column rates.

Concessional Tariff for Books

	1 Insertion	4 Insertions	8 Insertions	12 Insertions
Per Cm Per Column	Rs. 22.00	20.00	18.00	15.00

You will discover that these rates work out to even lower than the rates we charge for classified advertisements.

For booking, please contact :

Under Secretary (Publications)
Association of Indian Universities
AIU House, 16 Kotla Marg,
New Delhi-110 002

Grams : ASINDU **Telephone : 3310059**

Telex : 31 66180 AIU IN

BIRLA INSTITUTE OF TECHNOLOGY

B.I.T. MESRA : RANCHI

(A Deemed to be University)

ADMISSIONS NOTIFICATION—1990

Bachelor of Engineering & B. Pharm. (4-Year) Degree Course

Entrance Examination for admission to (1) Bachelor of Engineering (4-Year) Degree Course in Civil, Computer Science, Electrical & Electronics, Electronics & Communication, Mechanical and Production Engineering and (2) B Pharm. (4-Year) Degree Course in Pharmaceutical Sciences will be held on May 26th & 27th 1990 at the following Centres :

Agra, Ahmedabad, Allahabad, Bangalore, Bareilly, Bhagalpur, Bhopal, Bhubaneshwar, Bombay, Calcutta, Chandigarh, Dehradun, Delhi, Gauhati, Gaya, Ghaziabad, Gorakhpur, Hyderabad, Jaipur, Jamshedpur, Lucknow, Madras, Muzaffarpur, Patna, Ranchi, Sindri, Trivandrum, Varanasi and Vijayawada,

provided sufficient number of candidates opt for the proposed centres.

Qualifications

For Bachelor of Engg : I.Sc., or 10+2 or equivalent examination with Physics, Chemistry and Mathematics, for B.Pharmacy with Physics, Chemistry and Biology. Maximum age limit 21 years on 1st October, 1990. Those appearing this year at the qualifying examination are also eligible to apply.

Schedule of Examination

Saturday, 27th May, 1999 — 9 A.M. to 11 A.M. Mathematics,
1 P.M. to 3 P.M. Physics
and
Sunday, 27th May, 1990 — 9 A.M. to 11 A.M. Chemistry
1 P.M. to 3 P.M. Biology.

Application Form can be obtained by post on non-refundable pre-payment of Rs 25/- by crossed postal order payable to the Registrar, Birla Institute of Technology, Mesra, Ranchi. The request should accompany a self-addressed envelope of size 25 x 12 cm. affixed with postage stamps of Rs. 1.80 paise clearly mentioning the form required i.e., Bachelor of Engineering or B. Pharmacy as the case may be.

Eligible candidates who wish to appear for both the courses i e. B E as well as B Pharmacy may submit only one application form of either B E. or B. Pharmacy indicating clearly on the top of the application form that they wish to be considered for both the courses.

22-1/2% seats are reserved for SC/ST candidates.

The last date for receipt of completed application form is 10-4-1990.

G.C. Singh
CO-ORDINATOR ENTRANCE EXAMINATION & O S D.

Dated : December 11, 1989.

PUNJAB AGRICULTURAL UNIVERSITY

ADDENDUM TO ADMISSION NOTICE

It is notified that the last date for the receipt of applications for admission to Ph.D programme is extended up to **January 20, 1990.** The revised schedule of interviews is as under :

Subject	Date	Time	Place of Interview
Agronomy, Extension Education, Entomology, Plant Pathology, Food Technology	5.2.90	9.00 A.M.	Pal Auditorium Complex, PAU Ludhiana.
Plant Breeding, Pomology, Vegetable Crops, Animal Sciences, Soils	6.2.90	9.00 A.M.	-do-
Botany, Chemistry, Bio-Chemistry, Business Admn.	7.2.90	9.00 A.M.	-do-
Genetics, Zoology, Microbiology, Economics, Statistics	8.2.90	9.00 A.M.	-do-
College of Home Science	12.2.90	9.00 A.M.	-do-
College of Vety. Science	12.2.90	11.00 A.M.	-do-
College of Agril.) Engineering) Energy Science &) Technology)	12.2.90	2.30 P.M.	-do-

Note : Other terms and conditions will remain same.

S.S. Gill
REGISTRAR

Compulsory Iodisation of Salt

S. D. College, Muzaffarnagar recently organised a seminar on 'Compulsory iodisation of salt' under the joint auspices of the Department of Chemistry and Deptt. of Home Science. The seminar focussed on the implication of compulsory iodisation of table salt under the health policy of the Government of India to combat goitre and other iodine deficient disorders. It was an inter-disciplinary seminar with representation from diverse departments such as surgery, chemistry, zoology, home science, social science, women studies, botany, etc.

Speaking on the compulsory iodisation, Dr. L.N. Mittal, Principal of the College, pointed out that the iodisation of salt should be undertaken like other major national health programmes, such as Malaria, Leprosy, Tuberculosis etc., to maintain good health of the citizens as per 'Health for all by 2000 A.D." commitment of the Government of India. He described the efforts being made by the Government in this direction in a phased manner by launching national goitre control cells, and permission of iodization of salt both in public and private sectors. The controversy amongst the scientists about the goitre control through compulsory iodization, loss of iodine in transit and storage, deterioration due to exposure to wind, moisture, rains and report of nutrition foundation of India were also discussed by him. A mention was made about the reports of the All India Institute of Medical Sciences, Academy of Nutrition Improvement, claims and counter-claims of various study groups, workshops and orientation programmes of UNICEF and socio-economic implications of compulsory iodization. He emphasized the need of studies on the salt consumption, iodine content in soil and drinking water and effects of excess iodine consumption in different agro-climatic zones.

Dr. M.C. Jain, Head, Deptt. of Chemistry, Dr. M.N. Ansari and Mr. Raj Kumar in their joint paper spoke on the applicability of iodine in pharmacology and paints, Unguentum Iodine tinctum, Lipiodol, Iodoxyl etc., as chemotherapeutic agent. Information was given on the use of radioactive iodine therapy, germicidal properties of iodine, addition of stabilizers like thiosulphate and dextrose with iodisation of salt, and induction of goitre due to excessive exposure to iodine. The measure for the ineffectiveness of iodization may be low iodine content in the salt, low stability of the iodised product, use of chlorinated water, hyperacidity, etc.

Dr. Shuchi, Head, Deptt. of Home Science, discussed the effects of iodisation on the growth and maintenance of tissues in the body, necessity of iodine for proper formation of thyroxine hormone and effects of iodine deficiency in children. She informed about the segment of population living in goitre prone areas, incidence of goitre symptoms in children of various socio-economic groups, goitre endomic regions of India, lack of knowledge about iodine intake through water and food, irreversible effects of iodine deficiency in the infants. She emphasized the need for re-orientation of urban and rural population about the effects of IDD.

Miss Renu Kamboj of the Deptt. of Women's Studies pointed out the sources and functions of iodine in human body and associated deficiency diseases as well as eradication measures. She highlighted the functions of iodine in human body, iodine deficiency diseases and their eradication. For implementation of national policy for iodization suggestions were made for intensive surveys on disease incidence, food habits, infrastructural facilities to undertake the projects on iodine research. Emphasis was made to awaken the people for developing food habits of iodine rich foods, legal recognition for the policy of iodization and initiative for the establishment of iodised salt plants in public and private sectors.

Dr. Kuldeepak Kumar of the Deptt. of Zoology reviewed the role of iodine, its deficiency and remedial measures to combat iodine deficiency disorders. He demonstrated various steps of iodine cycle operating on the body. He also mentioned the functions of thyroid hormone and the symptoms of diseases like cretinism, thyxoedema, colloid goitre, diffuse parencymatous goitre, nodular goitre, toxic goitre and Hokkaido goitre. He concluded that iodization is a positive step to deal with the problem of iodine deficiency. But care should be taken about the use of iodized salt in the regions of sufficient iodine in the natural resources. Periodic surveys should be conducted to pinpoint the areas of iodine deficiency. Genetic factors should also be considered during the examination of iodine deficient areas. Careful examination of compulsory iodisation in various regions is needed.

Dr. A.C. Bhardwaj, of the Deptt. of Zoology, gave information about the metabolism and significance of iodine in animals and man. He compiled the infor-

mation on iodine regulating organs, metabolism of iodine, iodination of amino acid, release and hydrolysis of thyroglobulin, role of the thyroid in cold and warm blooded animals, physiological action of iodine, and diseases due to iodine deficiency. He pointed out the adequacy of iodine in the body for proper functioning of thyroid gland.

Dr. P.K. Kamboj of the Deptt. of Surgery, observed the necessity of iodine for thyroid hormone synthesis. He clarified the difference in the symptoms of hypothyroidism, hyperthyroidsm and enthyroidism. He agreed that the iodization of salt can meet the daily iodine requirement of the people and expected to significantly reduce the frequency of thyroid cases in such areas.

Dr. Beena Agarwal of the Deptt. of Home Science in her paper in Hindi discussed the issue of compulsory iodisation of salt from the social angle. Her paper provided data of the percentage of IDD in various regions of the country. She examined the role of the extension education by Department of the Home Science in the community medicine. She also took stock of various activities being carried under the scheme of compulsory iodisation of salt.

Sri Anil Gupta, Head, Deptt. of Economics, analysed the economies of the iodization of salt. He emphasized the necessity to work out the cost-benefit ratio of compulsory iodization besides its chemical, biological and physiological aspects. He highlighted the factors to ascertain the iodine requirements of different sections of the society. A word of caution was suggested while making such changes aiming at people welfare.

Seminar on Teaching Foreign Languages

An All-India Seminar on "Recent Advances in Methods of Teaching Foreign Languages" will be held on 23-25th January, 1990 in the School of Languages at the Jawaharlal Nehru University, New Delhi.

The seminar aims to provide a forum for discussion on one of the complex aspects in the area of Foreign Language Teaching (FLT) in India : methods of teaching. The foreign language teachers at Indian universities at some time or the other have been concerned with the question of choosing or devising an appropriate method of teaching a foreign language in non-native environment or planned instruction. In Indian context, the choice of an appropriate method acquires a special significance because of variety of courses and levels of instruction in different foreign languages. Some of the languages like Japanese and Chinese owe their introduction to recent past and are offered in very few universities/centres. They also demand attention from the methodists.

The topics proposed to be discussed include (a) Recent advances in different methods of teaching; (b) Relationship between aims and objectives of FLT and methods of teaching; (c) Relationship between Indian classroom and methods of teaching; (d) Methods of teaching suited to different courses e.g. part-time courses, full time undergraduate courses, full time and correspondence-cum-contact courses, functional courses, remedial courses, specific need oriented short term courses and courses oriented in distance education; (e) Relationship between methods and materials production; (f) Relationship between methods and testing and evaluation; (g) Course designing and methods; (h) Methods of teaching at school level; and (i) Methods of teaching for an adult learner.

Linking Varsities & Institutions

Dr. Alladi Ramakrishnan, former Director of the Institute of Mathematical Sciences, Madras, called for a linkage between universities and specialised research institutions. He said that in the U.S. and the U.K., most of the research work was done in universities while specialised institutions were run by the industries. In India, the research talent was concentrated in specialised institutions. The research output was not commensurate with the vast investment.

Referring to the Nobel Laureate, Dr. S. Chandrasekhar's recent remarks about the universities not being part of the scientific scene, Dr. Ramakrishnan said that specialised institutions and national laboratories had a lot of idle manpower and part of their energy ought to be devoted to teaching and training the youth; otherwise these institutions would "degenerate into islands of leisure."

The bulk of the funds allotted to institutions must be used for academic work and not for administrative overheads which swamped the entire budget, Dr. Alladi Ramakrishnan said. He felt the system of perquisites must be stopped in the academic sphere. Teaching and research should be taken as complementary to each other and the present "caste system"—between researchers and teachers—should disappear. He welcomed Dr. Chandrasekhar's

views about exposing the youth to eminent scientists who could inspire them.

World Debating Championships

Three students of the School of International Studies, Jawaharlal Nehru University (JNU) have been selected to participate in the World Debating Championships to be held in Glasgow from 28 December, '89 to 4 January, 1990. The students are Shri Mahesh Tiwari, Shri Anurag Das and Shri Rahul Mukherji. Mr. Tiwari is a member of the Jury.

The Government of India has provided free passage from Delhi to London and back to these students to take part in the world championships.

Librarians' Role in Dissemination of Information

Librarians have a vital role to play in the modern age of information and technology explosion, observed Dr. K.V. Raman, Director, National Academy of Agricultural Research Management (NAARM), while inaugurating a five-day workshop on "information technology and agricultural libraries information network" held at Hyderabad recently. The workshop aimed at possible adoption of newer technologies and prepare an action plan for change in working environs through networks, resource sharing, etc. Mr. R.B. Gaddagimath, workshop coordinator, outlined the salient features of the workshop, wherein librarians of agricultural universities and ICAR institutes are participating.

Homi Bhabha Fellowships

To mark the 80th birth anniversary of Dr. Homi Bhabha, the Chairman of the Homi Bhabha Fellowships Council has decided that more than the usual number of Fellowships be awarded in the next twelve months to young men and women of exceptional talent and dedication.

A fellowship is awarded normally for a period of one to two years and its value ranges between Rs. 4,000 and Rs. 6,000 per month, with funds, where necessary, provided for equipment and other requirements and travel within the country or abroad. The Government of India has granted full exemption from income-tax to the recipients of Homi Bhabha Fellowships.

Applications for Fellowships should be addressed to the Hon. Executive Director, Homi Bhabha Fellowships Council C/o National Centre for the Performing Arts, Dorabji Tata Road, Nariman Point, Bombay-400021.

News from Agril. Varsities

International Workshop on Chickpea

Scientists at an international workshop organised recently by the International Crops Research Institute for Semi-Arid Tropics (ICRISAT) at Hyderabad, underscored the need for evolving methods of raising productivity of chickpea commonly called 'kabuli chana' or bengal gram to meet the future requirements.

The scientists felt that chickpea was an important crop both for human food and animal fodder and a good candidate for farmers cropping systems, but efforts over the past few decades had not met with success to boost yields.

Though research on chickpea did not demand huge capital investment, it was not receiving due attention from developed countries, said Dr. J.I. Cubero from Spain, in his chairman's remarks at the inaugural session. He felt that the best way to meet the future challenges was to forge closer linkages between international institutions in agriculture and various countries.

In his inaugural address, the Director General of ICRISAT, Dr. L.D. Swindale said during the last few decades results of chickpea research have been far from happy. He urged the scientists to ponder over the uses of chickpea and accordingly fix priorities for research in the 1990's. He said ICRISAT had plans to strengthen and accelerate its chickpea programme in the coming years, Chickpea is one of the world's most important pulse crop and 80 per cent of it comes from the Indian sub-continent.

Dr. Swindale favoured a shift in chickpea cultivation to newer areas in a bid to raise productivity and yields. ICRISAT studies have shown that it was difficult to raise yields in the same fields appreciably.

Dr. M.C. Saxena of the International Centre for Agricultural Research in Dryland Areas (ICARDA), Austria, in the keynote address stressed the need for fighting drought, heat and cold environmental constraints that threaten chickpea.

About 90 participants drawn from 28 countries took part in the five-day workshop.

Grant for Hybrid Research Project at HAU

The Indian Council of Agricultural Research (ICAR) has sanctioned Rs. 50.5 lakhs to Haryana Agricultural University (HAU) for hybrid research on rapeseed, mustard, cotton and rice. This was announced by Dr. R.S. Paroda, Deputy Director General (Crop Sciences), ICAR in the second meeting of the Haryana State Micro Mission on Crop Production Technology on Oilseeds held recently at Hisar. The break up of the amount for different crops is : Cotton Rs. 6.93 lakhs, rapeseed-mustard Rs. 26.35 lakhs and bajra Rs. 12.76 lakhs. This project has been sanctioned after reviewing the research programmes and the progress made by the university in the research on these crops.

The meeting took stock of the progress made by the University in terms of generation of agro-production and protection technologies for achieving the target set before HAU by the Technology Mission on Oilseeds. Dr. Paroda said that Haryana Agricultural University was given nine mandates by the Technology Mission on oilseeds and it had already achieved the target of seven mandates well before the time frame.

The University has recently released many high yielding varieties of oilseeds, viz. toria variety TH-68 (early and high yielding), mustard varieties RH 8113 (high yielding and tolerant to alternaria and white rust diseases) and RH 781 (high yielding and frost tolerant). These new developments are expected to help in further increasing and stabilizing the production of rapeseed-mustard in the State.

Dr. Har Swarup Singh, Vice-Chancellor, HAU advised the extension workers of the university as well as to the State Department of Agriculture to communicate the newly developed technologies to farmers so that they may derive benefits of the new technologies.

Training Course on Weed Control

The Advanced Centre of Training in Wheat Production Technology of the Punjab Agricultural University (PAU), organised a two-day training course on identification and control of weeds in wheat for District Training Officers, Subject Matter Specialists and Plant Protection Inspectors of the State Department of Agriculture. Inaugurating the course Dr. Khem Singh Gill, Director of Extension Education of the PAU said that effective measures should be taken to control weeds in wheat with the help of herbicides. He however cautioned that these chemicals should not be excessively used. He stressed that the cost of production should be cut down by using seeds of improved varieties, efficient water management, judical use of fertilizers and plant protection measures. He disclosed that in Punjab during 1988-89, 1800 tonnes of herbicides in wheat were used which was the highest in the country.

Dr. O.P. Malhotra, Regional Coordinator, National Demonstration Plots while explaining the objectives of the training programme said that per acre yield of wheat in Punjab could be increased further by adopting weed control measures recommended by the PAU.

Mongolian Delegation Visits HAU

A Mongolian delegation of senior veterinarians consisting of Dr. Tumbaa Hoshbatin, Head, Division of Pharmacology & Toxicology, Ulan Bator, Dr. Dashcheren Cegmedin, Head of the Division of Virology, recently visited the Haryana Agricultural University. The delegation which is in India under the Indo-Mongolian Protocol on Scientific and Technological cooperation in the field of agricultural research held detailed discussions with Dr. Dwaraknath, Additional Director of Research. They lauded the research work being done by the Veterinary Virologist and Toxicologists of the University. They felt that the techniques evolved by HAU scientists could be adopted usefully by Mongolian researchers.

Released Today

TEACHING AT A DISTANCE

Edited by Inayat Khan

A collection of papers on Distance Education that treat of its organisation and development, use of technology, preparation of instructional material, faculty improvement and latest researches.

XII + 167p 1989 Rs. 150/-

AMAR PRAKASHAN
A 1/139 B, Lawrence Road
Delhi : 110035

Both the scientists are workers in the Ulan Balor Zaison Veterinary Institute and are eminent scientists in their field.

Cambodian Delegation Visits HAU

A six-member Cambodian delegation of senior veterinarians headed by Mr. Pen Pannha, Vice Minister Agriculture, paid a two day visit to HAU. The delegation held detailed discussions with Dr. R.C. Gupta, Dean, College of Veterinary Sciences. They were much impressed with the research work done by the veterinary scientists of the university and indicated that some Cambodian students might be sent to HAU for higher studies in Veterinary science. The Cambodians were of the opinion that the HAU system of ambulatory clinics by which the veterinarians reach the farmers for field-treatment of animals is an excellent system which should be adopted by Cambodia and other such countries where systematic treatment of farm animals is yet to gain momentum. Mr. Pannha said, "Physical facilities and infrastructure which HAU has are very significant assets for attracting and pursuading the farmers to come closer to the technological advances that veterinary surgery has made". He made special mention of the free accommodation that is provided to animal owners in the veterinary clinics of HAU.

News from UGC

INSAT 1-B Programme of UGC

Between 1st January to 6th January, 1990 the following schedule of telecast on higher education through INSAT 1-B under the auspices of the University Grants Commission will be observed. The programme is presented in two sets of one hour duration each every day from 12.45 p.m. to 1.45 p.m. and 4.00 p.m. to 5.00 p.m. The programme is available on the TV Network throughout the country.

1st Transmission

12.45 p.m. to 1.45 p.m.

1.1.90

"Nuclear Techniques in Material Research"
"Small Scale Industry—I"
"Field Channels"

2.1.90

"Bromine—Element from Sea"
"Mathematics Counts—I"
"Eye Surgery—Cataract and Intraocular Lens Implantation"

3.1.90

"Liquid Limit Test"
"Charminar: The Living Legend"
"How Does a Gene Act? Modern Genetics and Human —III"

4.1.90

"Computer Memory—III"
"Literature and Language—I"

5.1.90

"Frequency Bands Used for Space Communications"
"Defence Mechanism—Anxiety —I"
"Acid Rain"

6.1.90

"Off the Ground—A Discussion"
"Scenic America: The Denali Wilderness"

2nd Transmission

4.00 p.m. to 5.00 p.m.

1.1.90

"Electron Microscope—An Introduction"
"Four Decades of Planning—Who's Responsible?"
"Structure for Storing Grain—Save Your Grain—III"

2.1.90

"The Basics: Using Modern Technology—The Micro Computer"
"Guar—An Old Crop With New Uses"
"PRIDE—Drug Conference"

3.1.90

"Eyes in the Sky—Remote Sensing—III"
"The American Vision"

4.1.90

"Pulse Circuits—II"
"Secrets of Greenland Ice"
"The Human Seasons—John Keats"

5.1.90

"Vedic Mathematics—VI"
"Ghosts, Gods & the Human Mind"
"A Talk With Prof. W.R. Lee & Prof. Wongphanich"

6.1.90

"Glove Puppet Making"
"The Art of Cartooning—II"
"Hesse's Life Work"

We Congratulate. . .

Prof. C.N.R. Rao, Director, Indian Institute of Science, Bangalore, who has been awarded the honorary fellowship of the Royal Society of Chemistry, London. He is the first Indian Chemist to achieve this distinction.

Book Review

UNPRECEDENTED

Indu Dave*

G.A. Wagholikar. A Book of Careers. Delhi, Doaba House, 1987. 496 p. Rs. 80.

The author has selected not only one of the most significant aspects of a man's life to base his book on, but also one of the most raw areas of research in the field of Education & Psychology to work on the commendable research reported in his book, "A Book of Careers".

A man's entire life is directly and indirectly moulded, conditioned and guided by his vocation through which he actualizes his hopes and ambitions in life. Unfortunately, in India, the selection of this crucial component of an individual's entire life-fulfilment is just cruelly left to the Chance Factor ! Sensing this emergent need in the increasing complicated world of work today, the author has made a tremendous effort to identify the various career-areas in our country, as a first step towards the fulfilment of the emergent need. After separately identifying various Job-families, the author has proceeded to list several available vocations in each particular Job-family. Each of the listed job has been described in all its relevant details.

Wagholikar, who is the Deputy Director of Employment Exchanges, Ministry of Labour, has scientifically supported his statements and amplifications with authentic research data available at the Directorate General of Employment and Training. Thus the scientific value of his work and the weight of his valuable contribution has increased a great deal.

In a fairly spacious Volume of 496 pages, Wagholikar has covered up-to-date information about 59 career areas in India. Under each career-area, Wagholikar has given authentic information about the types of jobs existing under the area, requisite qualifications and competencies to enter the job, and to perform its inherent work-tasks, available training facilities for acquiring these competencies, all relevant details regarding these training institutions, the inherent occupational hazards as well as assets of the job, future possibilities in the field and several other types of desirable information typical to the job being discussed.

It would, therefore, not be an exaggeration to state that Wagholikar's "A Book on Careers" has been the outcome of a stupendous work in the technical field of Job-Analysis". All the up-to-date information about all the jobs in India, available in a single volume is an unprecedented example of comprehensive work in the history of Educational-Vocational Guidance in India.

The book will prove to be of great worth in all institutions offering courses in the field of educational vocational guidance and counselling. It provides such a wealth of information that it can easily be called a Concise and Precise Dictionary on the Vocational World in India today. The book should also remain on the shelves of all teacher education institutions which provide for specialized courses in the area of guidance and counselling. It should be highly recommended as a valuable source-book on vocational information in India.

* *Former Professor of Education, Vidya Bhawan Teachers' College, Udaipur. Now Director, Counselling Clinic, Udaipur.*

JAMIA MILLIA ISLAMIA
JAMIA NAGAR, NEW DELHI-110025

CORRIGENDUM

It is to inform to all concerned that the Post of History (Historical Study of Indian Islam) as advertised at Sl. No. 2 vide Advt. No. 1/1989-90 may please be read as under :

"Reader in History (History of Islam in India).

The number of vacancies appeared in the above advertisement are liable to be changed/withdrawn without notice by the Jamia.

(Orig. Advt. appeared in University News, Issue June 05, 1989)

Dated : 27.11.1989

Khwaja M. Shahid
REGISTRAR

AIU Library & Documentation Services

One of the important functions of the Association of Indian Universities is to act as a clearing house of information on higher education in the country. Towards this end the AIU Library is engaged in collection building and developing instruments for the dissemination of research information. Over the years a valuable collection of books and documents on different aspects of higher education has been acquired.

The Library has also developed Bibliography of Doctoral Dissertation as an effective tool in the dissemination of research information. Retrospective bibliographies covering the period 1857-1970 and 1970-75 were the first to appear. Effective 1975, however, the bibliography is issued annually in two volumes. One volume deals with Natural and Applied Sciences while the other records doctoral degrees awarded in Social Sciences and the Humanities. In addition to the normal bibliographical details like the name of the Research Scholar, the title of the thesis, years of registration for and award of the degree, and the name of the University accepting the thesis for award of a doctoral degree, the bibliography also gives name and complete address of the supervising teacher and an availability note that seeks to inform whether a copy of the dissertation is available for consultation and use in the University Library/Department or Registrar's Office.

The columns 'Theses of the Month' and 'Research in Progress' are intended to cut out the time lag between the receipt of information and its inclusion in bibliography. Such Universities as are not sending us regular information in respect of Doctoral Theses accepted and research scholars enrolled are welcome to make use of these columns.

The Library is open from 9.00 a.m. to 5.30 p.m. Monday through Friday.

CURRENT DOCUMENTATION IN EDUCATION

A List of Select Articles Culled from Periodicals Received in the AIU Library during December, 1989.

EDUCATIONAL PHILOSOPHY

Brennan, Andrew and Dumbleton, Paul. Learning difficulties and the concept of a person. *British J Edul Studies* 37(2), 1989, 147-68.

Burbules, Nicholas C. Issues and trends in the philosophy of education. *Edul Admn Q* 25(3), 1989, 229-52.

Poggeler, Franz. The fundamental right to education. *Education* Vol. 39, 1989, 7-22.

Trachtenberg, Stephen Joel. Presidents can establish a moral tone on campus. *Edul Record* 70(2), 1989, 4-9.

EDUCATIONAL SOCIOLOGY

Ariano, Carol Powell. The bridging program for women : An innovative learning approach that works. *Convergence* 21(4), 1988, 45-54.

Stromquist, Nelly P. Women's education in development : From welfare to empowerment. *Convergence* 21(4), 1988, 5-16.

EDUCATIONAL ADMINISTRATION

Bottery, Mike. The education of business management. *Oxford Rev Edn* 15(2), 1989, 129-46.

Dehne, George C. An agenda for small colleges. *The Coll Bd Rev* (151), 1989, 4, 31-2.

Sloper, D.W. The selection of vice chancellors : The Australian experience. *Hr Edn Q* 43(3), 1989, 246-65.

Toren, Nina and Nvo-Ingber, Judith. Organisational response to decline in the academic marketplace. *Hr Edn* 18(4), 1989, 453-71.

Vandament, William E. Primer for academic administrators. *Change* 21(1), 1989, 43, 58-9.

TEACHERS & TEACHING

Buchmann, Margret. Breaking from experience in teacher education : When is it necessary ? How is it possible ? *Oxford Rev Edn* 15(2), 1989, 181-95.

Floden, Robert E. Teachers' professional lives : The state of the art. *Intl J Edul Res* 13(4), 1989, 455-66.

Prick, Leo G.M. Satisfaction and stress among teachers. *Intl J Edul Res* 13(4), 1989, 363-77.

EDUCATIONAL RESEARCH

Evan, Colin and Palmer, Barry. Inter-group encounters of a different kind : The experiential research model. *Studies Hr Edn* 14(3), 1989, 297-308.

EDUCATIONAL EVALUATION

Debets, P and others. MPS : A computer program for item analysis according to a non-parametric IRT approa ch. *Edul Psy Measurement* 49(3), 1989, 609-13.

Flechsig, Karl-Heinz. Instructional design : A new fashion or a new development stage in teaching method. *Education* 39, 1989, 67-82.

Hacker, R.G. The construct validities of some group tests of intellectual development. *Ednl Psy Measurement* 49(1), 1989, 269-75.

Mellenbergh, Gideon J. Item bias and item response theory. *Intl J Ednl Res* 13(2), 1989, 127-43.

Noah, Harold J and Eckstein, Max A. Tradoeffs in examination policies : An international comparative perspective. *Oxford Rev Edn* 15(1), 1989, 17-27.

Skipper, James K. Benefits of hindsight : Design problems in evaluating innovation in medical education. *Eval Practice* 10(3), 1989, 7-11.

Taylor, Jim and Johnes, Jill. An evaluation of performance indicators based upon the first destination of university graduates. *Studies Hr Edn* 14(2), 1989, 201-17.

Thissen, David and others. Multiple-choice models : The distractors are also part of the item. *JEM* 26(2), 1989, 161-76.

Wimmers, Eric. Questioning the text : Literary analysis and multiple-choice testing. *Coll Bd Rev* (151). 1989, 24-29, 39.

ECONOMICS OF EDUCATION

Mathios, Alan D. Education, variation in earnings, and non-monetary compensation. *J H Res* 24(3), 1989, 456-68.

Smith, David and Saunders, Michael. Costing part-time provision. *Open Learning* 4(3), 1989, 28-34.

PHYSICAL EDUCATION & SPORTS

Kikulis, Lisa M and others. A structural taxonomy of amateur sport organizations. *J Sport Management* 3(2), 1989, 129-50.

Yiannakis, Andrew. Some contributions of Sport Sociology to the marketing of sport and leisure organisations. *J Sport Management* 3(2), 1989, 103-15.

ADULT EDUCATION

McIlroy, John. Continuing education : Do the universities mean business ? *Studies Hr Edn* 14(3), 1989, 331-45.

DISTANCE EDUCATION

Adams, Christine. But what's it really like ?—The taster pack idea. *Open Learning* 4(3), 1989, 42-3.

Ananthasayanam, R and Rajamani, N.C. Role of television in distance education. *J Ednl Planning & Admn.* 2(3-4), 1989, 37-45.

Brook, Chris, Grade co-ordination and the remote tutor. *Open Learning* 4(3), 1989, 48-50.

Gupta, S.K. Finances of the institutes of distance education vis-a-vis cost constraints and cost effectiveness, *J Ednl Planning & Admn* 2(3-4), 1989, 113-17.

Peters, Otto. The iceberg has not melted : Further reflections on the concept of industrialisation and distance teaching. *Open Learning* 4(3), 1989, 3-8.

Rathore, Harish C.S. The use of computers in the management of distance education. *J Ednl Planning & Admn* 2(3-4), 1989, 67-77.

Ross, Shelagh and Scanlon, Eileen. Conventional wisdom, course choice and student progress in science courses. *Open Learning* 4(3), 1989, 14-22.

THREE TYPES OF Interaction (Editorial). *The American J Distance Edn* 3(2), 1989, 1-6.

Valicha, Kishore. Academic organisation of correspondence/distance education institutes. *J Ednl Planning & Admn* 2(3-4), 1989, 107-11.

COMPARATIVE EDUCATION & COUNTRY STUDIES

Cantor, Leonard. The American community colleges : A time of reappraisal. *Studies Hr Edn* 14(3), 1989, 309-19.

Francis, K. Education in Travancore, Cochin and Malabar, 1948-1980. *New Frontiers Edn* 19(1), 1989, 24-33.

THESES OF THE MONTH

A List of Doctoral Theses Accepted by Indian Universities

BIOLOGICAL SCIENCES

Anthropology

1. Satish Chandra, N. *Fetal growth and development ; An anthropological appraisal.* Delhi.

2. Papa Rao, A. *Inbreeding among the Gollas of Guntur District in coastal Andhra Pradesh, Southern India.* Venkateswara.

Marine Biology

Viswanath, Kiron. *Nutritional requirements of the fry of gold spot Mullet, Liza Parsia (Hamitton).* CUST. Dr. Paul Raj, Scientist, Central Marine Fisheries Research Institute, Cochin.

Biochemistry

1. Bhattacharyya, Nisan. *Studies with the repetitive DNA of Vigna radiata (Mung bean).* Calcutta.

2. Das, Tapas. *Studies on the high affinity mutent repressor of bacteriophage lambda.* Calcutta.

3. Ghoshdastidar, Namita. *Safety and quality of food in respect of certain specifications, analyticals and metal pollutants.* Calcutta.

4. Hoare, Kishalay. *Regulatory role on L-alanine : 4, 5, dixio-valeric acid transaminase on the biosynthesis of hame in yeast.* JNU. Dr. Kasturi Datta, Assoc. Prof., Department of Environmental Sciences, Jawaharlal Nehru University, New Delhi.

5. Quader, Rukhsana *Molecular biology of the choloro-phages and 138.* Calcutta.

6. Thilagavathy, Hepsibah Packia. *Biochemical studies on human filariasis.* Kerala. Dr. R. Kaleysa Raj, Prof. and Head, Department of Biochemistry, University of Kerala Trivandrum.

7. Wary, Kishore Kumar. *Biochemical aspects of betel-nut carcinogenesis.* NEHU. Dr. R.N. Sharan, Department of Biochemistry, North-Eastern Hill University, Shillong.

Microbiology

1. Deshpande, Anuradha Ram *Dephosphorisation of manganese ores by microbiological process.* Nagpur. Dr. Daginawala, Department of Biochemistry and Microbiology, Nagpur University, Nagpur.

2. Vijayagopalan, K. *Saccharification of cassaya starch and its fermentation for the industrial alcohol production.* Kerala. Dr. C. Balagopalan, Scientist, S\ and Head. Division of Harvest Technology, CTCRI, Sreekaryam, Trivandrum.

Botany

1. Acharyya, Sampa *Studies in the tertiary palaeobotany of some regions of Eastern India* Burdwan. Prof. S K. Roy, Department of Botany, University of Burdwan, Burdwan.

2. Banerjee, Anjana. *Interation of soil microorganism and captan : N-Trichloro methlmercapto 4-cyclohexene, 1 : 2 dicarboxylmide.* Burdwan. Dr. Ajit Kumar Banerjee, Prof, Department of Botany, University of Burdwan, Burdwan.

3. Kotwal, Prem Chand. *Ecological studies on evaluation of certain wildlife habitats and their utilisation by major mammals in Kanha National Park.* Delhi Prof. G P. Misra, Department of Botany, Dr. Harisingh Gour Vishwavidyalaya, Sagar.

4. Nanda Kumar, P.B.A. *Hydridization between wild and crop brassicas : Studies on cytology, multiplication and induction of alloploidy in hybrids.* Delhi.

5. Pandey, Santosh Kumar. *Flora of the gangetic level from Patna to Buxer.* Magadh.

6. Pareek, Archana. *A study of aquatic plants in Rajasthan.* Rajasthan.

7. Pramanik, Makhan Ch. *A study of certain crop and non-crop plants in relation to salinity.* Calcutta.

8. Rampal, Raj Kumar. *Ecological studies on the macrofungi of Bhaderwah forests, Jammu (J & K).* Jammu. Dr. Shashi Kant.

9. Shaikh Lutfar Rahaman. *Relation of tissue environment morophogenesis and Alkaloid accumulation in Datura Metal Linn.* Calcutta.

10. Verma, Nawal Kishore. *Response of grassland ecosystem to coaldust pollution.* Magadh. Dr. D.D. Pandey, Lecturer, Department of Botany, S.P.M. College, Udantpuri, Nalanda.

Agriculture

1. Atiur Rahaman. *Studies on the physiological basis of yield variation in jute.* Calcutta.

2. Thakur, Kamal Singh. *Effect of time of picking and some chemical treatments on the biochemical constituents and storage of apple, Malus domestica Borkh cv. Royal Delicious.* YS Parmar. Dr. S.K. Chopra, Department of Post-Harvest Technology, College of Horticulture, Solan.

3. Thakur, Sanjeev. *In vitro propagation studies in some forest tree species.* YS Parmar. Dr. P.K Khosla, Director of Extension Education, Dr. Y.S. Parmar University of Horticulture and Forestry, Solan.

4. Thakur, R amesh Chand. *Evolution of black locust, Robinia pseudo-acacia L. for foliar nutrients, calorific value and pulping characteristics.* YS Parmar. Dr. A.N. Kaushal, Department of Forest Products and Utilization, College of Forestry, Solan.

Zoology

1. Agrawal, Alok Kumar. *C-reactive protein in the serum and hepatocytes of a white rat under Xenobiotic Insulation : Induction, purification and properties.* Visva Bharati.

2. Arora, Rajni. *A comparative histophysiological study of certain skeletal muscles of vertebrates with different modes of locomotion with special reference to SDH m-ATPase-light chains and LDH Isozymes.* Delhi.

3. Chaya Devi, Chintamaneni. *ph dependent changes in kinetic properties of tyrostnase and its role in the regulation of melanin synthesis.* Delhi.

4. Datta, Swapan Kumar. *Studies on the aphid tending ants (Hymenoptera : Formicidae) of some parts of North East India.* Calcutta.

5. Gulati, Manju. *Chromosome studies on some Indian curculionidae and their significance in taxonomy (Coleoptera : Insecta).* Panjab.

6. Harcharan Singh. *Studies on the reproductive performance of Apis mallifera L. queen bees raised in different seasons.* PAU.

7. Jagadeesh Chandran, G. *Comparative studies on the pituitary gland of some fishes.* HS Gour. Dr. (Mrs.) S. Sahai, Reader, Department of Zoology, Dr. Harisingh Gour Vishwavidyalaya, Sagar.

8. Jayamma, S. *Seasonal variations in the physico chemical and physiological properties of the blood of the freshwater field crab, Oziotelphusa senex Senex.* Venkateswara. Prof. B.P. Naidu, Department of Zoology, Sri Venkateswara University College, Tirupati.

9. Kasaiah, A. *Neuroethology of the scorpion, Heterometrus fulvipas : Habitat, cuticular receptors and behaviour.* Venkateswara. Prof. K. Sasira Babu, Department of Zoology, Sri Venkateswara University Post Graduate Centre, Kavali.

10. Maji, Tapas Kumar. *Pineal gonadal inter-relationship in male white throated munia, Lonchura malabarica,* Burdwan. Dr. Asit Kumar Sarkar, Prof., Department of Zoology, University of Burdwan, Burdwan.

11. Pardhasaradhi, Atluri *Ecological biogeography of freshwater fishes in the north east regions of India.* NEHU Dr. J.R.B. Alfred, Joint Director, Zoological Survey of India, Calcutta.

12. Radhakrishna, P.G. *Effect of organophosphorus insecticides on food and water utilization in the silkworm bombyx moyi L.* Bangalore. Dr. M.R. Delvi, Department of Zoology, Jnanabharathi, Bangalore University, Bangalore.

13. Sharma, Shubhra. *An investigation on the fertility of the female rat after postcoital administration of seeds of Nigella sativa and carica papaya.* Rajasthan.

14. Sharma, Vinita. *Investigations on the effects of lethal and sublethal doses of anticoagulants, Brodifaecum and Warfarin on the behaviour and biology of Indian desert Gerbil, Meriones hurriane Jerdon.* Rajasthan.

15. Sonoli, Suresh Basavaraj. *Histophysiological studies on the gonads of the insect Heliothis armigera (Huebner)*

(Nocutuidae : Lepidoptera). Karnatak. Dr. M.A. Hooli, Reader, Department of Studies in Zoology, Karnatak University, Dharwad.

16. Rajya Sree, M. *Metabolic alteration in fish, Labeo rohita on exposure to ambient urea.* Venkateswara. Dr. P. Neeraja, Department of Zoology, Sri Venkateswara University College, Tirupati.

17. Srinivas, Pentyala Narasimha. *Neonatal organocarbamate poisoning : Effects on rat brain metabolism.* Venkateswara. Dr. (Smt.) K. Indira Sriram, Department of Zoology, Sri Venkateswara University College, Tirupati.

18. Surendranath, P. *Studies on toxic impact of kelthane on lipid metabolism of the penaeid prawn, Metapenaeus monoceros (Fabricius) under sublethal, acute and chronic exposures.* Venkateswara. Dr. K.V. Ramana Rao, Department of Zoology, Sri Venkateswara University Post Graduate Centre, Kavali.

Medical Sciences

1. Abdul Kadir, K.A. *The spinal reflex organisation of the C8 segment of the spinal cord in normal and hemiplegic bonnet monkeys, Macaca-radiata.* Kerala. Dr. K. Madhavan Kutty, Poonthanam, Calicut.

2. Bhattacharya, Asim Kumar. *Plant sterols : Their absorbability and role in human disease. D.Sc.* Calcutta.

3. Chakraborti, Krishna Kamal. *Pharmacognostic, phyto-chemical and antihepatotoxic investigations on 'Punarnava' a traditional drug of Indian origin.* Panjab.

4. Chaudhri, Bidyutjyoti. *Comparative studies of physiological responses during static work between right and left hands of men.* Calcutta.

5. Dalal, Bidyutbikas. *Possible impact of amino acid imbalance on metabolism of brain amines.* Calcutta.

6. Jain, Ravi Lata. *Ayurvediya bhootvidya tantra se sambandhit vyadhiyon ke sandharbh mein devavyayashram evam satvavajaya chikitsa ka adhyayana.* Rajasthan.

7. Khandpur, Neelam. *The study of physiological and serological characteristics of group B streptococcus : Human and Bovine strains.* Delhi.

8. Premandran, S John. *A comparative study of the pharmacological actions of calcium, strontium and barium and their interaction with calcium antagonists on different muscle tissues.* Nagpur. Dr. M D. Khapre, Dr. Punjabrao Deshmukh Memorial Medical College, Amravati.

9. Senapati, Shishir Kumar. *An epidemiological study on child survival of a rural population of West Bengal.* JNU. Prof. D. Banerji, Centre of Social Medicine and Community Health, Jawaharlal Nehru University, New Delhi.

10. Sharma, Narayan Lal. *Pranij dravyon ka bhaishajya kalpanatmak adhyayan.* Rajasthan.

11. Varandani, Gopi. *Potential pathogens of acute diarrhoea.* Calcutta.

BIRLA INSTITUTE OF TECHNOLOGY

B.I.T. MESRA : RANCHI

(A Deemed to be University)

ADMISSIONS NOTIFICATION—1990

Applications are invited for admission to the following post-graduate Degree Programmes for the academic session 1990-91.

(i) M.B.A.—(Master of Business Administration)
2—Yr. Full-time Course and 3-Yr. Part-time course.

(ii) M.C.A.—(Master of Computer Applications)
3—Yr. Full-time course and 4½ Yr. Part-time course.

(Ii)) D.C.A.—(Diploma in Computer Applications)
1—Yr. Full-time course and 1½ Yr. Part-time course.

Admissions will be made through an Entrance Examination which will be held on Saturday, May 26, 1990 at 1.00 p.m. to 2.00 p.m. for D.C.A. and on Sunday, May 27, 1990 at 9.00 a m. to 11.00 a.m. for MBA & 1.00 p.m. to 3.00 p.m. for MCA at the following Centres :

Agra, Ahmedabad, Allahabad, Bangalore, Bareilly, Bhagalpur, Bhopal, Bhubaneshwar, Bombay, Calcutta, Chandigarh, Dehradun, Delhi, Gauhati, Gaya, Ghaziabad, Gorakhpur, Hyderabad, Jaipur, Jamshedpur, Lucknow, Madras, Muzaffarpur, Patna, Ranchi, Sindri, Trivandrum, Varanasi, and Vijayawada.

Eligibility

(i) For M.B.A. (2-Yr. Full-Time) Course : University Degree (3-Yr. Course in 10+2+3 System) with atleast 50% aggregate marks in Arts/Science/Commerce, and 60% Marks for graduate in Engineering/Technology/Agriculture.

(ii) For M.B.A. (3-Yr. Part-Time) Course : Same as of (i) above and further the candidate must have three years experience in supervisory capacity in any firm or organisation of repute.

(iii) For M.C.A. (3-Yr. Full-Time) Course : University Degree (3-Yr. course in 10+2+3 system) with atleast 50% aggregate marks, with Maths./Statistics as one of the subjects at the Degree level.

(iv) For M.C.A. (4½-Yr. Part-Time) Course : Some as of (iii) above, and further the candidate must have three years experience as executive in any firm or organisation of repute.

(v) For D.C.A. (1 Yr. Full-Time) Course : University Degree with atleast 50% aggregate marks with Mathematics/Statistics as one of the subject at intermediate level.

(vi) For D.C.A. (1½ Yr. Part-Time) Course : Same as of (V) and further the candidate must have one year experience in any firm or organization of repute.

22½% seats are reserved for SC/ST candidates.

Those appearing at the various qualifying examinations are eligible. The selected candidates will, however, be required to produce the qualifying examination result by the end of September 1990.

Application Forms can be obtained by post on non-refundable pre-payment of Rs. 25/- only by crossed postal order, payable to the Registrar, Birla Institute of Technology, Mesra, Ranchi. The request should accompany a self-addressed envelope of size 26 x 12 cm. affixed with postage stamps of Rs. 1.80 paise clearly mentioning the form required i.e. MBA, MCA or DCA as the case may be.

The last date for receipt of completed application form is Aprll 10, 1990.

G.C. Singh
CO-ORDINATOR ENTRANCE EXAMINATION & O.S.D.

BHARATHIAR UNIVERSITY
COIMBATORE 641 046

Advertisement No. 11292/E1/89 Dated : 12.12.89

Applications in the prescribed form are invited for the following posts :

Name of the Post	No. of Post	Scale of Pay	Qualification & Experience
Assistant Registrar	One (SC/ST)	1575-90-1845-100-2245-110-2685 (pre revised—subject to revision)	1. First or Second Class Master's Degree (50% or 'B' Grade) 2. 5 years Academic/ Administrative experience in a cadre not less than that of a Superintendent or equivalent post. (Age : should not exceed 40 years as on 1.12 89.)

Application form can be had from the Registrar, Bharathiar University Coimbatore 641 046 on requisition accompanied by a self-addressed Rs. 1.40 stamped envelope (25 cm × 10 cm). Attested copies of certificates showing qualifications, age, Community, Experience etc., should be sent along with the application in the prescribed form (in eight copies) together with Registration Fee of Rs. 25/- in the form of crossed Indian Postal Order dated not earlier than 10.12 89 drawn in favour of the Registrar, Bharathiar University, Coimbatore 641 046. Candidates who are already in service should send their application through proper channel.

Completed application should reach the Registrar on or before **17.1.1990.**

Incomplete applications, applications without the required Registration Fee and application received after the due date will not be considered.

REGISTRAR

MASS COMMUNICATION RESEARCH CENTRE
JAMIA MILLIA ISLAMIA
JAMIA NAGAR, NEW DELHI-110025

Advertisement No. II/1989
Dated : 18-12-1989

The Mass Communication Research Centre invites applications for the following posts :

1. READER IN TELEVISION
(Rs. 3700-5300)
(Temporary—but likely to be made permanent)

Educational and other qualifications

Essential

(i) Degree of a recognized University.

(ii) Degree or Diploma or equivalent in Video Production from a recognized University or Institute.

(iii) At least four years' professional experience including teaching in Video Production in an Institution or organization of repute.

OR

(i) Master's Degree of a recognized University; and

(ii) At least six years' professional experience including teaching in Video Production in an Institution or organization of repute.

OR

(i) Degree of a recognized University or equivalent.

(ii) At least eight years' professional experience including teaching in Video Production in an Institution of repute.

Desirable

Good knowledge of Radio, Film and T.V. medium in India and abroad.

2. LECTURER IN TELEVISION
(Rs. 2200-4000)
(Temporary—but likely to be made permanent)

Educational and other qualifications

Essential

(i) Degree of a recognized University.

(ii) Degree or Diploma or equivalent in Video Production from a recognized University or Institute;

(iii) At least two years' professional experience in Video Production in an Institution or organization of repute.

OR

(i) Master's Degree of a recognized University; and

(ii) At least four years' professional experience including teaching in Video Production in an Institution or organization of repute.

OR

(i) Degree of a recognized University or equivalent;

(ii) At least six years' professional experience including teaching in Video Production in an Institution of repute.

OR

(i) A first class Master's Degree in Communication from a recognized Institution;

(ii) Handsome experience of both Studio based and outdoor productions.

Desirable

Good knowledge of Radio, Film and T.V. media in India and abroad.

Any of the qualifications mentioned above can be relaxed at the discretion of the Selection Committee in the case of candidates otherwise exceptionally qualified.

D.A.; C.C.A.; H.R.A.; P.F.; Gratuity, Pension and other benefits will be given as per Jamia Rules.

Application forms can be had from the Administrative Officer, Mass Communication Research Centre on any day except Saturdays, Sundays and Holidays, either personally between 9 00 a.m. and 12.00 noon or by sending a self-addressed and stamped envelope. Application should be accompanied with crossed Indian Postal Order or Bank Draft for Rs. 7/- (Rs. 2/- for SC/ST candidates) in favour of the Administrative Officer, Mass Communication Researeh Centre, Jamia Millia Islamia, Jamia Nagar, New Delhi-110025

The last date for receipt of applications is 5.1.1990.

M.B. Mughal
ADMINISTRATIVE OFFICER

UNIVERSITY OF LUCKNOW

Advertisement No. 4/1989

WANTED

Professors (Rs. 4500-150-5700-200-7300):

1. One in Linguistics
2. One in Ancient Indian History & Archaeology
3. One in Constitutional & Administrative Law
4. One temporary in English
5. One in Law
6. One in Zoology
7. One in Hindi
8. One in Persian
9. One in Economics
10. One in Mathematics
11. One temporary in Mathematics
12. One in Anthropology

Readers (Rs. 3700-125-4050-150-5700) :

13. One in Zoology
14. Two in English
15. One in Linguistics, Deptt. of English
16. One in Labour Economics, Deptt. of Economics
17. Three in Education
18. One in Sociology (Specialisation in Political Sociology/Sociology of Education)
19. One temporary in Physics
20. One in Business Administration, Faculty of Commerce
21. Two in Mathematics

Lecturers (Rs. 2200-75-2800-100-4000) :

22. One permanent and one temporary in Political Science
23. One in Political Science (International Studies)
24. Two permanent and two temporary Lecturers in Ancient Indian History & Arch,
25. One permanent and one temporary Lecturer in Western History
26. One temporary Lecturer in Western History for teaching History and Culture of Asian Peoples.
27. One in Chinese
28. One permanent and one temporary in Sociology
29. Two in Sanskrit
30. One temporary in Med. & Mod. Indian History
31. One in Social Work
32. One in the Section of Oriental Studies in Sanskrit
33. One in Urdu
34. Two in Public Administration
35. Five permanent and three temporary Lecturers in Physics
36. Three permanent and one temporary in Chemistry
37. One permanent and one temporary Lecturer in Botany
38. One permanent and one temporary in Business Administration, Faculty of Commerce
39. Two temporary Lecturers in Applied Economics, Faculty of Commerce
40. Three in Education
41. One in French
42. One in English
43. One in Law
44. One in Zoology
45. One in Statistics
46. One in Mathematics

Minimum Qualifications for Professors

Eminent scholarship with published work of high quality and active engagement in research and ten years' experience of teaching or research and experience of guiding research at doctorate level;

OR

Outstanding scholarship with established reputation for significant contribution to knowledge.

Minimum Qualifications for Readers

(a) Good academic record with a doctorate degree or equivalent published work and active engagement in research or innovation in teaching methods or production of teaching materials; and

(b) Five years' experience of teaching or research including at least three years as Lecturer or in an equivalent position.

Provided that the requirement contained in clause (b) may be relaxed in the case of candidate who in the opinion of the Selection Committee has outstanding research work to his credit.

Qualifications for Lecturers

As laid down in the Lucknow University First Statutes.

General

Benefits of Provident Fund/Pension available as admissible under the rules. Period of probation for permanent posts is one year.

It is not necessary to fill any/all of the advertised posts. Canvassing will be disqualification.

Prescribed Application Form can be obtained, free of cost, by sending a self-addressed envelope size 23 x 10 cm. with postage stamp worth Rs. 6/- from the Office of the Registrar. Last date for submission of applications, duly completed in all respects, with recent testimonials, publications etc. and a Bank Draft of Rs. 5/- drawn in favour of the Registrar, Lucknow University, Lucknow, payable at any Bank in Lucknow, is January 10, 1990. Applications without Bank Draft will not be entertained (Postal Order or Money Order will not be accepted). Candidates who are in service should send their applications through proper channel. Application Forms to outstation candidates will be sent upto Jan. 3, 1990.

Those who have applied for posts No. 1 to 4 and 13 in response to our Advertisement No. 2/1988 dated May 18, 1988 and for posts No. 5 to 10,14,15 16,17,18,19 and 20 in response to our Advertisement No. 4/1988 dated Sept. 28, 1988 and for posts No. 22 to 41 in response to our Advertisement No. 6/1988 dated October 31, 1988 need not apply afresh as their old applications will be considered. Such candidates may, however, intimate their additional qualifications and attainments during this period for their specialization in the respective field.

M.M. Varma
REGISTRAR

NORTH EASTERN HILL UNIVERSITY

LOWER LACHUMIERE
SHILLONG

Advt. No. F. 1-54/Estt-II/89-56
Dated : 12th December, 1989

CORRIGENDUM

In partial modification of this University's Advertisement No. F. 1-54/Estt-II/89-553 dated 6th December, 1989, the following modification is hereby announced.

Modification

Finance Officer : (S) Post—1.

Scale of Pay : Rs. 4500-150-5700-200-7300/-

Essential Qualification

A Bachelors' Degree with at least 7 years experience in Financial Management at the senior level in an organised accounts service or 15 years experience in Financial management in an organised accounts service.

J.M.S. Khongwir
ASSTT. REGISTRAR (ESTT).

Printed & Published by SUTINDER SINGH, on behalf of the Association of Indian Universities, AIU House, 16 Kotla Marg, New Delhi-110002. Grams : ASINDU. Phones : 3315105, 3313390, 3312305, 3310059 and 3312429 Telex 31 66180 AIU IN
Printed by Navchetan Press (P) Ltd. at Navjeevan Printers, 1-E/2, Jhandewalan Extension, New Delhi-110055. Tel. 529157

UNIVERSITY NEWS

VOLUME 27 : 1989

SUBJECT INDEX

A. Articles

ADULT EDUCATION

Bajaj, K.K. Communication strategies in Adult Education. 6, Feb. 6, pp.1-3, 10.

Bhatia, S C. National Literacy Mission and the Universities. 4, Jan. 23, pp.3-5.

————Technology demonstration districts. 10, March 6, pp.1-2.

Devadas, Rajammal P. and others. Impact of the Observance of the National Literacy Day-1988. 6, Feb. 6, pp-4-7.

Hooja, G.B.K. National Literacy Mission and the Universities. 38. Sept. 18, pp.5-7.

Ramana, K. V. National Literacy Mission and the Andhra University. 49, Dec. 4, pp. 4-5.

COMPARATIVE EDUCATION & COUNTRY STUDIES

Bhaskaran, Nair, P.V. Higher education in India. 48, Nov 27, pp. 12-15.

Das, Mamota. Higher Education for all. '37, Sept 11, pp. 1-3, 9.

Khanna, S.K. Development of Higher Education in India. 38, Sept 18, pp. 1-4.

Sharma, U.P. Education system in Hungary. 30, July 24, pp. 7-9.

COUNSELLING & GUIDANCE

Mahadevan, Udaya. Guidance Services in Colleges. 50, Dec 11, pp. 8-10.

CURRICULUM

Lal, Man Mohan. What ails the English syllabus : 52, Dec 25, pp. 7-10.

Mathur, M.L. National pattern of education and restructuring of courses. 52, Dec 25, pp. 1-6.

Shastri, Diwakar. Further reorganisation of first-degree courses at Banasthali. 35, August 28, pp. 3-10.

Thanu, L.C. Gandhian studies in the universities : Perspectives and prospects. 46, Nov 13, pp. 4-6.

DISTANCE EDUCATION

Krishnakumar, K. Distance education and self-instructional materials : An appraisal. 25, June 19, pp. 6-9.

Pandey, Saroj. The changing scenario of education : Distance education. 8, Feb 20, 4-5, 7.

Shah, Beena. Distance education : Taxonomy of courses, educational aims and teaching strategies. 40, Oct 2, pp. 53-60

ECOLOGY

Pant, J.C. A strategy for balanced development : An eco-systems' approach. 37, Sept 11, pp. 4-6.

————Why and how of eco-restoration : Role of intellectuals. 51, Dec 18, pp. 5-12.

ECONOMICS OF EDUCATION

Ansari, M M. Financial health of universities : A diagnostic study. 11, March 13, pp. 1-14.

————Resource allocation and financial accountability of universities. 40, Oct. 2, pp. 17-21.

Bajpai, A.D.N. Higher education and structural problems of Indian economy. 43, Oct 23, pp. 7-8.

Balachander, K.K. Wanted : A more meaningful Government-Varsity partnership. 40, Oct 2, pp. 9-16.

Har Swarup Singh. Financing the agricultural universities in an era of budgetary constraints. 44, Oct 30, pp. 18-22.

Israney, S.M. Pricing higher education. 8, Feb. 20, pp. 1-3.

Kalyankar. V.G. Status of higher education in developing countries with special reference to India 21, May 22, pp. 3-6.

Nanjundappa, O.M. University finances : Search for new perspectives. 44, Oct 30, pp. 10-17.

Padhan, A. The efficiency approach to input-output analysis of education. 42, Oct 16, pp. 5-7.

Rais Ahmed. Financial and other needs of the universities for scientific research. 44, Oct 30, pp. 23-25.

UNIVERSITY FINANCES. 40, Oct 2, pp. 1-7.

Venkateswaran, S. Financial management of private universities : A case study of BITS. 44, Oct 30, pp. 26-36.

EDUCATIONAL ADMINISTRATION

Amrik Singh. The Governance of universities. 4, Jan 23, pp. 1-2.

Anjni Kumar. AIU and training of university administrators. 24, June 12, pp. 8.

Bajaj, K.K. College Development Council : The planning role. 24, June 12, pp. 1-3.

————62nd Constitutional Amendment and student activism. 13, March 27, pp. 1-3.

————University autonomous colleges interaction. 31, July 31, pp. 6-7.

Bajpai, A.D.N. Recursion between university and industry. 30, July 24, pp-6,9.

Bhagia, N.M. and Juneja, Nalini, Role performance of heads of colleges in India. 16, April 17, pp. 1-3.

Chalam, K.S. The concept of accreditation and Assessment Council : Some observations. 17, April 24, pp. 4-5.

Ghanchi, D.A Conflict in higher education : The Indian scenario. 25, June 19, pp. 1-5.

————The soft state of Indian higher education. 14, April 3, pp. 1-4.

Ghosh, A.K. The crisis of Academic Authority. 47, Nov. 20, pp. 1-3.

Gugnani, Hans Raj. Educational consultancy in the private sector. 34, August 21, pp. 4-5, 7.

India. Law Commission. Cultural educational tribunal. 27, July 3, pp. 9-17.

Isranev, S.M. Undergraduate colleges : A mission to fulfil. 40, Oct 2, pp. 39-42.

Jagjit Singh, K. Institutional accountability. 28, July 10, pp 1-5.

Jain Kagzi, M.C. The Governor as Chancellor 15, April 10, pp. 1-5.

Kaptan, Sanjay. Modernizing university administration. 13 March 27, pp. 4-5, 10.

Kapur, J.N Autonomous colleges : Role of teachers and principals. 8, Feb 20, pp. 6-7.

Kiranmayi, Y.S. and others. Restructuring organisational structure of universities in India. 40, Oct 2, pp. 23-38.

Lal, Man Mohan. Mathematics of accountability. 4, Jan 23, pp. 6-8.

Narayanaswami, Srinivasa. Democratising the Governance of universities and colleges. 43, Oct 23, pp. 1-3.

Om Prakash. Twenty point-programme on autonomous college-university relationship. 43, Oct 23, pp. 4-6.

Shastri, Diwakar. Accreditation and Assessment Council : Concepts and realities 50, Dec 11, pp. 1-2, 10.

Tope, T.K. Constitutional provisions relating to education. 5, Jan 30, pp. 4-8.

———————Universities and law courts. 33, August 14, pp. 1-5, 10.

———————University and law courts. 18, May 1, pp. 2-3, 5.

———————University and law courts. 48, Nov 27, pp. 7-11.

Varadacharyulu, N.C. Making the UGC more effective. 3, Jan 16, pp. 1-2.

AUTONOMY IN ACTION SERIES

Immanuel, S. Prabakar. Department of Rehabilitation Science, Holy Cross College, Tiruchirapali. 1, Jan 2, pp. 9-10.

Mohan, A.L. SDS Autonomous College, Shreeramnagar. 14, April 3, pp. 5-6.

Pownraja, A. Ayya Naddar Janaki Ammal College, Sivakasi. 21, May 22, pp. 10-12.

Raman, Anantanarayanan. Curriculum in the Autonomous Loyola College : Background, developmental process and reflection. 18, May 1, pp. 6-7.

Rao, M.R. Autonomous colleges in Andhra Pradesh : A critical review 29, July 17, pp. 3-5.

———————Restructuring of courses in autonomous colleges of Andhra University. 50, Dec 11, pp. 3-7.

Soundararaj, Francis. Restructuration of undergraduate courses in autonomous colleges. 48, Nov 27, pp. 1-6.

EDUCATIONAL PHILOSOPHY

Abdul Kareem, S. Education in human values. 10, March 6, pp. 9-12.

Gerth, Donald R. Education and national development. 24, June 12, pp. 4-7.

Ghanchi, D.A. National goals and higher education. 7, Feb 13, pp. 1-4.

———————Three myths of Indian higher education. 45, Nov 6, pp 1-5.

Lal, Man Mohan. Nehru's concept of education. 36, Sept 4, pp. 1-5.

Sheik Ali, B. Science, culture and consciousness. 5, Jan 30, pp. 1-3.

EDUCATIONAL POLICY & PLANNING

Ghosh, D.K. New education policy : Role of management. 49, Dec 4, pp. 1-3.

Mitra, C R. Indian University System : A call to action. 10, March 6, pp. 3-8.

Yadav, R.S Education in future tense. 34, August 21, pp. 1-3.

EDUCATIONAL PSYCHOLOGY

Anantha Krishna, K.S. How to test architectural aptitude ? 49, Dec 4, pp. 11-12.

Ghanchi, D.A. The student at risk. 31, July 31, pp. 1-5.

Maharaj Singh. Think right and be creative. 28, July 10, pp. 6-7.

Sharma, R.R. Behavioural deviation among students. 1, Jan 2, pp. 1-4.

EDUCATIONAL RESEARCH

Maharaj Singh. Evaluation of research : Search for an objective criterion. 34, August 21, pp 6-7.

EDUCATIONAL SOCIOLOGY

Bajaj, K.K. Education for women's equality. 46, Nov 13, pp. 7-9.

Bhatia, S C. Drug abuse prevention education : University/ college roles. 29, July 17, pp. 1-2.

Das, Mamota and Rathor, Raka. Students attitude towards depoliticization of education. 47, Nov 20, 4-7, 13.

Ghanchi, D.A. Education, polity and economy : The distorted triangle. 51, Dec 18, pp. 1-4.

India. HRD. National perspective plan for women : Women's education. 23, June 5, pp. 19-26.

Isranev, S.M. Institutional barriers to women students in Indian higher education. 32, August 7, pp. 10-12.

———————Status of women in the academic world : Indian context. 23, June 5, pp. 11-14.

Joshi, Sneha and Desai, Nikhil. Students unions in universities. 41, Oct 9, pp. 1-4.

Menon, Laxmi. Emancipation of women. 23, June 5, pp. 6-10.

Pillai, J.K. Strategies for empowerment of women. 23, June 5, pp. 1-2.

Shastri, Diwakar. Women's universities or universities for women ? : Mission of women's institutions in higher education. 23, June 5, pp 3-5.

Sheik Ali, B. National integration. 2, Jan 9, pp. 1-4, 7.

Suryakumari, A Strategies for political empowerment of women. 23, June 5, pp. 17-18.

Trivedi, Jyoti H. Future images of women's universities. 32, August 7, pp. 5 9.

Vijayalakshmi, B. Alcoholic de-addiction programme of Andhra University. 14, April 3, pp. 7-8.

Watson, Leonard E. and Thakkar, Usha. The management development of women administrators : Some considerations. 23, June 5, pp. 15-16.

EDUCATIONAL TECHNOLOGY

Menon, M.G.K. Technology for the future. 35, August 28 pp. 1-2.

Ramamurthy, V. Computers in financial management : Experiences of Delhi University. 19, May 8, pp. 12-16.

Sampath, S. Evolving computer technologies. 19, May 8, pp. 1-11.

Shah, Beena. Educational technology : Some recent innovations. 16, April 17, pp. 4-12.

Singh, Abhimanyu. Computerising large systems : Lessons from an application. 7, Feb 13, pp 5-13.

EVALUATION

Banerjee, Gautam. Evaluating evaluators. 36, Sept 4, pp. 6-9.

Kannappan, D. Examination reforms in laboratories. 21, May 22, pp. 7-9.

Mishra, S.B.S. and Chatley, P.K. Self evaluation system cum delinking of degrees from jobs. 45, Nov. 6, pp-8.

Venkata Reddy, K. Criteria of academic excellence. 42, Oct. 16. pp. 3-4.

INSTITUTIONAL PROFILE

Bhatnagar, K.N. The University of Allahabad : A perspective. 9, Feb 27, pp. 4-8,

SRI PADMAVATI Mahila Vishvavidyalayam : A profile. 32, Aug. 7, pp. 1-4.

THE COMMONWEALTH OF Learning. 13, March 20, pp. 9.

UNIVERSITY OF Kashmir : A profile. 40, Oct 2, pp. 61-64.

LANGUAGE & LANGUAGE POLICY

Verma, Shivendra K. English in India : Problems and prospects. 9, Feb 27, pp. 1-3.

LIBRARIES & BOOKS

Anand. A.K. Micro-computers in libraries : A report from Panjab University Library, Chandigarh. 30, July 24, pp. 1-5.

Devadas. Rajammal P. and others. National Book Week celebrations. 28, July 10, pp. 8-10.

Jagannathan, Neela. Library services for distance learners. 47, Nov 20, pp. 8-13.

Mangla, P.B. Information systems and services in India : Trends and prospects. 41, Oct 9, pp. 5-12.

Ramaiah, L.S. Information and documentation work vis-a-vis the humanities in India. 1, Jan 2. pp. 5-8,

Srivastava, Anand P. Development of Information and Library Network (INFLIBNET). 17, April 24, pp. 1-3.

————Librarian and user interaction. 12, March 20, pp. 1-5.

PROFESSIONAL EDUCATION

Venugopal, A. Progress of education, medical education and the need for University of Health Sciences. 22, May 29, pp. 4-11.

SCIENCE EDUCATION

Devadas, Rajammal P. and others. Impact of the observance of the National Science Day. 18, May 1, pp. 4-5.

SPORTS & PHYSICAL EDUCATION

Grewal, B.S. NSS turns twenty. 42, Oct 16, pp. 1-2, 7.

TEACHERS & TEACHING

Chaudhari, U.S. Professional competence of college teachers. 45, Nov 6, pp. 6-7.

————and Vaidya, Shobha. Mastery learning : A remedy against educational wastage. 15, April 10, pp 6-8

Das, Mamota. Needs for restructuring teacher education. 12, March 20, pp. 6-8.

Hamid Hussain. Teaching-writing model. 17, April 24, pp. 6-8, 13.

Lal, Man Mohan. Pedagogy of English poetry. 22, May 29, pp. 1-3.

Mohanty, Sunil Behari. Effective classroom management in higher education. 49, Dec 4, pp. 6-9.

————Effective teaching in colleges. 40, Oct. 2, pp. 43-51.

Saxena, A.K. Brain-storming : An orientation exercise in a heterogenous group. 26, June 26, pp. 10 12.

Sethunarayanan, Rm The role and functioning of teachers' organisation in higher education. 39, Sept 25, pp 1-5.

Singh, R.K. Technical communication teaching : A needs assessment report. 26, June 26, pp 1-9.

Singh, S.N. Teachers as workmen. 27, July 3, pp. 1-8.

Venkata Reddy, K. English teaching in India. 21, May 22, pp. 1-2.

Verma, Yoginder Singh. University teacher in the contemporary society. 2, Jan 9, pp. 5-7.

VOCATIONAL EDUCA TION

Bhowmick, B.C. and Gogoi, D.K. Agricultural universities and rural development in India. 39, Sept 25, pp. 6-8.

Pereira, Nicolace Gracias, Vocationalisation at the post secondary srage. 22, May 29, pp. 13-14.

Pereira, Rev. N. Education and higher order skills. 41, Oct 9, pp. 13 14.

Suryanarayana, Lingam. Universities of Health Sciences. 46, Nov 13, pp. 1 3, 6.

B. CONVOCATION ADDRESSES

Alagappa University

Menon, M.G.K. The role of education. 23, June 5, pp. 27-30.

Amravati University

Ram Reddy, G. Women's education. 30, July 24, pp. 10 12.

Andhra Pradesh Open University

Krishna Rao, K.V. Internal situation in India. 29, July 17. pp. 6 10.

Andhra University

Abid Hussain. Analysis-paralysis syndrome. 12, March 20, pp. 11-13.

Anna University

Rao, C.N.R. Higher science and technical education 15, April 10, pp. 9-11.

Assam Agricultural University

Randhawa, N.S. Assam Agricultural University and the agricultural scenario of the North East. 41, Oct 9, pp 15-19.

Banaras Hindu University, Institute of Agricultural Sciences.
Swaminathan, M.S The future of Indian agriculture. 42, Oct 16, pp. 9-11.
Banaras Hindu University, Institute of Medical Sciences.
Sinha, A.K.N. The status of medical education. 39, Sept 25, pp. 9-13.
Banaras Hindu University, Institute of Technology
Wahi, S.P. Leadership and management of human resource. 36, Sept 4, pp. 11-12.
Bangalore University.
Rao, U.R. New technological society, 13, March 27, pp. 7-10.
M.S. University of Baroda
Shiv Shankar, P. The concerns of higher education. 27, July 3, pp. 18-19.
Bharathiar University
Swaminathan, M.S. The challenge of sustainable development. 33, August 14, pp. 7-9.
Bharathidasan University
Mohan, S. The aims of education. 5, Jan 30, pp. 9-11.
Venkataramiah, E.S. The secret of teaching. 52, Dec 25, pp. 11-13.
C.S. Azad University of Agriculture and Technology
Swaminathan, M.S. Challenges to agricultural universities. 18, May 1, pp, 8-10.
Dayalbagh Educational Institute, Agra
Menon, M.G.K Vision of a global civilisation. 32, August 7, pp. 19-22.
Sahgal, G.D. Dayalbagh Educational Institute. 49, Dec 4, pp. 13-14.
Gandhigram Rural Institute
Ramachandran, G. Science and spirituality. 24, June 12, pp. 15-16.
Gujarat University
Khanna, S.K. Restructuring education. 3, Jan 16, pp. 8-9.
Guru Nanak Dev University
Shiv Shankar, P. The nature of university. 37, Sept 11, pp. 7-9,
Haryana Agricultural University
Swindale, L.D. Rainfed agriculture revisited. 14, April 3, pp. 9-13
Himachal Pradesh Krishi Vishwavidyalaya.
Randhawa, N.S, Directions for growth of agriculture in H.P. 8, Feb 20, pp. 9-13.
Virbhadra Singh. Apple state of India. 51, Dec 18, pp. 13 16.
University of Hyderabad
Sethna, H.N. Energy and our future. 21, May 22, pp. 13-14.
Indian Institute of Technology, Bombay
Manmohan Singh. Technology, economy and polity. 35, August 28, pp. 11-14.
Indian Institute of Technology, Delhi
Menon, M.G.K. The challenge before us 7, Feb 13, pp. 14-16.
Indian School of Mines, Dhanbad
Shahi, L.P. Indian School of Mines. 16, April 17, pp. 13-14.
Indira Gandhi National Open University
Ramphal, Shridath Surendranath. The importance of being open. 9, Feb 27, pp. 9-13.
Karnatak University
Chellaiah, Raja J. A true intellectual. 22, May 29, pp. 15-17.
University of Kashmir
Satchidananda Murty, K. The core of Indian civilization. 40, Oct 2, pp. 65-66.
Konkan Krishi Vidyapeeth
Randhawa, N.S. Agricultural situation in the Konkan Region. 43, Oct 23, pp 9-11.
Mahatma Phule Agricultural University
Swaminathan, M.S. Pathways to sustainable agriculture, 6, Feb 6, pp. 8-10.
Mangalore University
Amla, B.L Meanings of progress 26, June 26, pp 13-16.
Manipur University
Nurul Hasan, S. Interdisciplinary studies. 34, August 21, pp. 9-11.
Marathwada University
Patil Chakurkar, Shivraj V. New sciences and technologies. 10, March 6, pp. 13.
Mother Teresa Women's University
Jayakar, Pupul (Mrs) The battle of genders. 44. Oct 30, pp. 40-41.
Pondicherry University
Venkataraman, R. The sense of nationhood. 31, July 31, pp. 8-10.
Rajasthan Agricultural University
Randhawa, N.S. Agricultural situation in Rajasthan. 17, April 24, pp. 9-13.
School of Planning and Architecture
Yashpal. Zero-sum game 50, Dec 11, pp. 11-13.
Shivaji University
Mookerjee, Justice Chittatosh. The purpose of human life. 2, Jan 9, pp. 8-9.
Sri Padmavati Mahila Vishwavidyalayam
Bhansali, Kamalini H. Gender justice in and through education. 38. Sept 18, pp. 8-11.
Tamil Nadu Agricultural University
Subramaniam, C. Council of Agriculture. 28, July 10, pp. 11-14.
Telugu University
Sharma, Shanker Dayal. Regional languages and higher education. 45, Nov 6, pp. 9-12.
Thapar Institute of Engineering and Technology
Arunachalam, V.S. The computer revolution. 46. Nov 13, pp. 10-12.
University of Agricultural Sciences, Dharwad
Alagh, Yoginder K. Policies for agriculture. 25, June 19, pp. 11-16.

C. SEMINAR/WORKSHOP REPORTS

Alagappa University
Seminar on women and development. 23, June 5, pp-31.
————. Workshop on utilisation of technology for rural women. 35, August 28, pp-15.
Andhra Loyola College
Seminar on curriculum development in autonomous colleges. 34, August 21, pp. 14-15.
Andhra Pradesh Open University
Seminar on student support services. 12, March 20, pp. 15.
Anna University
Workshop on National Accreditation and Assessment Council. 24, June 12, pp. 17-18.
Association of Finish Adult Education Organisation
Seminar on role and responsibilities of adult education in today's world. 28, July 10, pp- 15.

Association of Indian Universities
Committee of elders report on dismissal and so-called resignation of Vice-Chancellors in Bihar Universities and Dr. H.S. Gour Vishwavidyalaya, Sagar. 20, May 15, pp. 5-32.
———— East-Zone Inter-University Youth, Festival held at Banaras Hindu University on Nov. 10-14, 1989 : A report. 48, Nov. 27, pp. 20-22.
————.4th inter-university National Youth Festival : A report. 11, March 13, pp. 21.
————.Krishna Rao. K.V. Inaugural Address. 44, Oct. 30, pp. 8-9, 22.
————.North Zone Inter-University Youth Festival held at Panjab University : A report. 42, Oct. 16, pp. 17.
————.Orientation-cum-appreciation course on use of computers in educational administration and management : A report. 19, May 8, pp. 17-18.
———— Seminar on university finances : Consensus. 44, Oct. 30, pp. 37-39 and 45, Nov. 6, pp. 12.
————.64th Annual Meeting. 44, Oct. 30, pp. 7-9, 22.
————Sukhdev Singh. Presidential Address, 44, Oct. 30, pp. 1-7.
————.West Zone Annual Meeting of Association of Indian Universities : A report. 33, August 14, pp. 11-13.
————West Zone Inter-University Youth Festival held at Rajasthan Agricultural University on Oct. 11-15, 1989 : A rsport. 44, Oct. 30, pp 41-42.
Banaras Hindu University
National workshop on high temperature superconductivity. 1, Jan. 2, pp. 16.
Bangalore University and Jawaharlal Nehru University
Seminar on international politics and their significance for India. 35, Aug. 28, pp. 15-16.
M.S. University of Baroda
Symposium on the survival of Gharanas in Hindustani Music. 14, April 3, pp. 14.
Bharathidasan University
XI Annual Conference of the Indian Botanical Society. 8, Feb. 20, pp. 15,
————.Seminar on university/industry collaboration. 13, March 27, pp. 11-12.
Bhavnagar University
Seminar on environmental protection. 45, Nov. 6, pp. 14.
University of Delhi
Examination reforms : A report, 42, Oct. 16, pp. 13.
————,Seminar on teaching of English language and literature in distance education. 18, May 1, pp. 14.
————.Training programme for administrative Officers. 34, August 21, pp. 13.
————.Training programme for administrative personnel. 51, Dec 18, pp. 17-18.
Gujarat Vidyapith
National seminar on Buddhist thought. 15, April 10, pp. 13-14.
Haryana Agricultural University
HAU's Horticulture Animal Products Development Authority (HAPDA) ; A report. 26, June 26, pp. 18-19.
————.Symposium on nitrogen fixation· 48, Nov. 27, pp. 17-18.
University of Hyderabad
Students and the drive against illiteracy. 43, Oct. 23, pp. 12.
India, National Commission on Urbanisation
Planning, practice and education. 30. July 24, pp. 13-14.
India, University Grants Commission
Code of professional ethics for university and college teachers. 10, March 6, pp. 15-16.
————.Guidelines for teaching and related matters. 1, Jan. 2, pp. 12-14.
————.INFLIBNET—Information and Library Network—Inter agency working group report. 3, Jan. 16, pp. 3-7.
Indian Agricultural Universities Association
16th Convention of the IAUA held at Trivandrum. 13, March 27, pp. 15.
Indian Institute of Technology, Delhi
National conference on biomechanics. 1, Jan. 2, pp. 15.
Indian National Science Academy
International seminar on science and technology for national development : International and regional cooperation. 49, Dec. 4, pp. 15.
Indian Universities Association for Continuing Education
Empowerment of Women. 4, Jan 23, pp. 9-10.
Jawaharlal Nehru Technological University
Workshop on university industry symbiosis. 39, Sept 25, pp. 14.
Jodhpur University
Orientation programme for university and college teachers. 7, Feb, 13, pp. 17.
————. Orientation programme for varsity and college teachers. 17, April 24, pp. 15-16.
————. Orientation programme for varsity and college teachers. 38, Sept 18, pp. 12.
Kakatiya University
All India conference on cytology and genetics. 2, Jan 9, pp. 11.
Mother Teresa Women's University
Seminar on Pandit Jawaharlal Nehru's perception on women. 47, Nov 20, pp. 17.
————. Seminar on women's studies as an academic discipline. 17, April 24, pp. 16.
University of Mysore
Workshop on Accreditation and Assessment Council. 18, May 1, pp. 11-13.
National Institute of Educational Planning and Administration (NIEPA) : Seminar on planning and management of scientific research in institutions of higher education. 42, Oct 16, pp 13-14.
NATIONAL SANSKRIT convention. 51, Dec 18, pp. 19-20.
ORIENTATION-CUM-training programmes. 9, Feb 27, pp. 19.
Pondicherry University
Orientation programmes for university and college teachers. 6, Feb 6, pp. 14.
Punjab Agricultural University
Dr. M.S. Randhawa Memorial lecture series. 46, Nov 13, pp. 15-16.
————. National symposium on Indian agriculture. 7, Feb 13, pp. 19-20,
————. National symposium on Indian agriculture in the year 2000 and beyond. 8, Feb 20, pp. 17-18.
————. Seminar on problems and prospects of Kinnow cultivation in the North Western states of India. 4, Jan 23, pp. 12-13.
Ramakrishna Mission Vivekananda Centenary College, Rahara : Symposium on modern trends in invironmental biology and seminar on environment and animal life. 11, March 13, pp. 16.

S.D. College, Muzaffarnagar
Seminar on compulsory iodisation of salt. 52, Dec 25, pp. 15-16.
————. Seminar on role of women in rural development. 47, Nov 20, pp. 15-16.
SNDT Women's University
ACU-CIDA management development workshop. 11, March 13, pp. 15.
————. Kasturba Gandhi Memorial Lecture series on emancipation of women. 16, April 17, pp. 15-16.
————. Workshop on visibility of women in statistics and indicators : Changing perspectives. 36, Sept 4, pp. 13.
Sri Padmavathi Mahila Vishvavidyalayam
National seminar on women in the press: The changing roles. 46, Nov 13, pp. 13.
Sri Venkateswara University
International seminar on analytical techniques in monitoring the environment. 7, Feb 13, pp. 17-18.
Talloires, France.
Seminar on the role of university in the nuclear age. 9, Feb 27, pp. 15.
Tamilnadu Agricultural University
26th meeting of the Extension Education Council of TNAU. 13, March 27, pp. 14
————. 26th Research Council meeting of Tamilnadu Agriculture University. 14, April 3, pp. 16-17.
————. Workshop on future strategies in oilseeds research. 16, April 17, pp. 17-18.
————. Workshop on millet research. 15, April 10, pp. 17-18.
Varma, Anupam. Manpower development and utilisation in agricultural research : Sectional Presidential address (Agrl. Scs.) at 76th session of Indian Science Congress held at Madurai Kamaraj University. 6, Feb 6, pp. 11-12.
VCs for collaborative projects. 35, August 28, pp. 17-18.

D. BOOK REVIEWS

Chalam, K.S.—A useful addition.
Amrik Singh and Sharma, G.D. Higher education in India : The institutional context. 36, Sept. 4, pp. 16.
Chavadi, V.S.—Useful guidelines.
D'Souza, Lena, Managing staff development in educational organization : A practical guide. 4, Jan. 23, pp. 15-16.
Dave, Indu—Unprecedented.
Wagholikar, G.A. A book of careers. 52, Dec. 25, pp. 20.
Panchamukhi, P.R.—A useful framework.
Chalam, K.S. Education and weaker section. 21, May 22, pp. 19.
Prasad Rao, C.R. Higher Education in India.
Amrik Singh and Sharma, G.D. Higher education in India: The social context. 24, June 12, pp. 9-13.
Ramamurthy, M S.—Breaking tradition.
Mitra, C.R. Education for self-reliance : Alternates in education and development. 32, August 7, pp. 27-28.
Roy, S.—Learning styles of creative studies.
Agarwal, Subhash C. Learning styles among creative students. 24, June 12, pp. 20.
Sood. S.C.—A significant contribution.
Singh, R.K. Using English in science and technology. 35, August 28, pp. 21-22.
Vedanayagam, E.G.—Useful guidelines.
D'Souza Lena and Prabhakar, Annamma. Managing appraisal in educational organisations : A practical guide. 22, May 29, pp. 22.

AUTHOR INDEX

Abdul Kareem, S. Education in human values. 10, March 6, pp 9-12.
Amrik Singh. The governance of universities. 4, Jan 23, pp. 1-2.
Anand, A.K. Micro-computers in libraries: A report from Panjab University Library, Chandigarh. 30, July 24, pp. 1-5.
Anantha Krishna, K.S. How to test architectural aptitude? 49, Dec 4, pp. 11-12.
Anjni Kumar. Association of Indian Universities and training of university administrators. 24, June 12, pp. 8.
Ansari, M.M. Financial health of universities : A diagnostic study. 11, March 13, pp. 1-14.
————. Resource allocation and financial accountability of universities. 40, Oct 2, pp. 17-21.
Bajaj, K.K. College Development Council : The planning role. 24, June 12, pp. 1-3.
————. Communication strategies in adult education. 6, Feb 6, pp. 1-3, 10.
————. Education for women's equality. 46, Nov 13, pp. 7-9.
————. 62nd Constitutional Amendment and student activism. 13, March 27, pp. 1-3.
————. University autonomous colleges interaction. 31, July 31, pp 6-7.
Bajpai, A.D.N. Higher education and structural problems of Indian economy. 43, Oct 23, pp. 7-8.
————. Recursion between university and industry. 30, July 24, pp. 6-9.
Balachander, K K Wanted : A more meaningful Government Varsity partnership. 40, Oct 2, pp. 9-16.
Banerjee, Gautam. Evaluating evaluators 36, Sept 4, pp 6-9.
Bhagia, N.M. and Juneja, Nalini. Role performance of heads of colleges in India. 16, April 17, pp. 1-3.
Bhaskaran Nair, P.V. Higher education in India. 48, Nov 27, pp 12-15.
Bhatia, S.C. Drug abuse prevention education : University/college roles. 29, July 17. pp. 1-2.
————. National literacy mission and the universities. 4, Jan 23, pp. 3-5.
————. Technology demonstration districts. 10, March 6, pp. 1-2.
Bhatnagar, K.N. The University of Allahabad : A perspective. 9, Feb 27, pp. 4-8.
Bhowmick, B C and Gogoi, D.K Agricultural universities and rural development in India. 39, Sept 25, pp. 6-8.
Chalam, K S. The concept of accreditation and assessment council : Some observations 17, April 24, pp. 4-5.
Chaudhari, U.S. Professional competence of college teachers. 45, Nov 6, pp. 6-7.
————. and Vaidya, Shobha. Mastery learning : A remedy against educational wastage. 15, April 10, pp. 6-8.
Das, Mamota. Higher education for all. 37, Sept 11, pp. 1-3, 9.
————. Need for restructuring teacher education. 12, March 20, pp. 6-8.

———— and Rathor, Raka. Students' attitude towards depoliticization of education. 47, Nov 20, pp. 4-7, 13.
evadas, Rajammal P. and others. Impact of the observance of the National Literacy Day-1988. 6, Feb 6, pp. 4-7.
————. Impact of the observance of the National Science Day. 18, May 1, pp. 4-5.
————. National book week celebrations. 28, July 10, pp, 8-10.
erth, Donald R. Education and national development. 24, June 12, pp. 4-7.
hanchi, D.A. Conflict in higher education : The Indian scenario. 25, June 19, pp. 1-5.
————. Education, polity and economy : The distorted triangle. 51, Dec 18, pp. 1-4.
————. National goals and higher education. 7, Feb 13, pp. 1-4.
————. The soft state of Indian higher education. 14, April 3, pp. 1-4.
————. The student at risk. 31, July 31, pp. 1-5.
————. Three myths of Indian higher education. 45, Nov 6, pp. 1-5.
Ghosh, A K. The crisis of academic authority. 47, Nov 20, pp. 1-3.
Ghosh, D.K, New education policy ; Role of management. 49, Dec 4, pp. 1-3.
Grewal, B.S. NSS turns twenty. 42, Oct 16, pp. 1-2, 7.
Gugnani, Hans Raj. Educational consultancy in the private sector. 34, August 21, pp. 4-5, 7,
Hamid Hussain. Teaching-writing model. 17, April 24, pp. 6-8, 13.
Har Swarup Singh. Financing the agricultural universities in an era of budgetary constraints. 44, Oct 30, pp. 18-22.
Hooja, G.B K. National literacy mission and the universities. 38, Sept 18, pp. 5-7.
mmanuel, S. Prabakar. Department of Rehabilitation cience, Holy Cross College, Tiruchirapalli. 1, Jan 2, pp. 9-10.
ndia, HRD. National perspective plan for women : Women's education. 23, June 5, pp. 19-26.
ndia, Law Commission. Central educational tribunal. 27, July 3, pp. 9-17.
raney, S.M. Institutional barriers to women students in Indian higher education. 32, August 7, pp. 10-12.
————. Pricing higher education. 8, Feb 20, pp. 1-3.
————. Status of women in the academic world : Indian context. 23, June 5, pp. 11-14.
————. Undergraduate colleges—A mission to fulfil. 40, Oct 2, pp. 39-42.
gannathan, Neela. Library services for distance learners. 47, Nov 20, pp. 8-13.
git Singh, K. Institutional accountability. 28, July 10, pp. 1-5.
in Kagzi, M C. The Governor as Chancellor. 15, April 10, pp. 1-5.
shi Sneha and Desai, Nikhil. Student unions in universities. -1, Oct 9, pp. 1-4,
lyankar, V.G. Status of higher education in developing countries with special reference to India. 21, May 22, pp. 3-6.
nnappan, D. Examination reforms in laboratories. 21, May 22, pp. 7-9.
ptan, Sanjay. Modernizing university administration. 13, March 27, pp. 4-5, 10.
Kapur, J.N. Autonomous colleges : Role of teachers and principals. 8, Feb 20, pp 6-7.
Khanna, S K. Development of higher education in India. 38, Sept 18, pp 1-4.
Kiranmayi, Y.S. and others. Restructuring organisational structure of universities in India. 40, Oct 2, pp. 23-28.
Krishnakumar, K. Distance education and self-instructional materials : An appraisal. 25, June 19, pp. 6-9.
Lal, Man Mohan. Mathematics of accountability. 4, Jan 23, pp. 6-8.
————. Nehru's concept of education. 36, Sept 4, pp. 1-5.
————. Pedagogy of English poetry. 22, May 29, pp. 1-3.
————. What ails the English syllabus ? 52, Dec 25, pp. 7-10.
Mahadevan, Udaya. Guidance services in colleges. 50, Dec 11, pp 8-10.
Maharaj Singh. Evaluation of research : Search for an objective criterion. 34, August 21, pp. 6-7.
————. Think right and be creative. 28, July 10, pp 6-7.
Mangla, P.B. Information systems and services in India : Trends and prospects, 41, Oct 9, pp. 5-12.
Mathur, M L. National pattern of education and restructuring of courses. 52, Dec 25, pp. 1-6.
Menon, Laxmi. Emancipation of women, 23, June 5, pp 6-10.
Menon, M.G.K. Technology for the future. 35, August 28, pp. 1-2.
Mishra, S B.S. and Chatley, P.K. Self evaluation system cum-delinking of degrees from jobs. 45, Nov 6, pp. 8.
Mitra, C R. Indian university system : A call to action. 10, March 6, pp. 3-8.
Mohan, A L SDS Autonomous College, Shreeramnagar. 14, April 3, pp. 5-6.
Mohanty, Sunil Behari. Effective classroom management in higher education. 49, Dec 4, pp. 6-9.
————. Effective teaching in colleges. 40, Oct 2, pp. 43-51.
Nanjundappa, D.M. University finances : Search for new perspectives. 44, Oct 30, pp. 10-17.
Narayanaswami, Srinivasa. Democratising the governance of universities and colleges. 43, Oct 23, pp. 1-3.
Om Prakash. Twenty point programme on autonomous college university relationship. 43, Oct 23, pp. 4-6.
Padhan, A. The efficiency approach to input-output analysis of education. 42, Oct 16, pp. 5-7.
Pandey, Saroj. The changing scenario of education - Distance education. 8, Feb 20, pp. 4-5, 7.
Pant, J,C. A strategy for balanced development: An eco-systems' approach. 37, Sept 11, pp 4-6.
————. Why and how of eco-restoration : Role of intellectuals. 51, Dec 18, pp. 5-12.
Pereira, Nicolau Gracias. Vocationalisation at the post secondary stage. 22, May 29, pp. 13-14.
Pereira, Rev. N. Education and higher order skills. 41, Oct 9, pp. 13-14.
Pillai, J.K. Strategies for empowerment of women. 23, June 5, pp. 1-2.
Pownraja, A. Ayya Naddar Janaki Ammal College, Sivakasi. 21, May 22, pp. 10-12.
Rais Ahmed, Financial and other needs of the universities for scientific research. 44, Oct 30, pp. 23-25.

Ramaiah, L.S. Information and documentation work vis-a-vis the humanities in India. 1, Jan 2, pp. 5-8.
Ramamurthy, V. Computers in financial management : Experiences of Delhi University. 19, May 8, pp. 12-16.
Raman, Anantanarayanan. Curriculum in the Autonomous Loyola College : Background, developmental process and reflection. 18, May 1, pp. 6-7.
Ramana, K.V. National literacy mission and the Andhra University. 49, Dec 4, pp. 4-5.
Rao, M.R. Autonomous colleges in Andhra Pradesh : A critical review. 29, July 17, pp. 3-5.
————. Restructuring of courses in Autonomous colleges of Andhra University, 50, Dec 11, pp. 3-7.
Sampath, S. Evolving computer technologies. 19, May 8, pp. 1.11.
Saxena, A.K. Brain-storming : An orientation exercise in a hetrogenous group. 26, June 26, pp. 10-12.
Sethunarayanan, Rm. The role and functioning of teachers' organisation in higher education. 39, Sept 25, pp. 1-5,
Shah, Beena. Distance education : Taxonomy of courses, educational aims and teaching strategies. 40, Oct 2, pp. 53-60.
————. Educational technology : Some recent innovations. 16, April 17, pp. 4-12.
Sharma, R.R. Behavioural deviation among students. 1, Jan 2, pp. 1-4.
Sharma, U.P. Education system in Hungary. 30, July 24, pp. 7-9.
Shastri, Diwakar. Accreditation and Assessment Council : Concepts and realities. 50, Dec 11, pp. 1-2, 10.
————. Further reorganisation of First Degree Courses at Banasthali. 35, August 28, pp. 3-10.
————. Women's universities or universities for Women ? Mission of women's institutions in higher education, 23, June 5, pp. 3 5.
Sheik Ali, B. National integration. 2, Jan 9, pp, 1-4, 7.
————. Science, culture and consciousness. 5, Jan 30, pp. 1-3.
Singh, Abhimanyu. Computerising large systems : Lessons from an application. 7, Feb 13, pp. 5-13.
Singh, R.K. Technical communication teaching : A needs assessment report. 26, June 26, pp. 1-9.
Singh, S.N. Teachers as workmen. 27, July 3, pp. 1-8.
Soundararaj, Francis. Restructuration of undergraduate courses in autonomous colieges. 48, Nov 27, pp. 1-6.
Srivastava, Anand P. Development of Information and Library Network (INFLIBNET). 17, April 24, pp. 1-3.
Srivastava, Anand P. Librarian and user interaction. 12, March 20, pp. 1-5.
Suryakumari, A. Strategies for political empowerment of women. 23, June 5, pp. 17-18.
Suryanarayana, Lingam. Universities of Health Sciences. 46, Nov. 13, pp. 1-3, 6.
Thanu, L.C. Gandhian studies in the universities : Perspectives and prospects. 46, Nov 13, pp. 4-6.
Tope, T.K. Constitutional provisions relating to education. 5, Jan 30, pp. 4-8.
————. Universities and law courts. 33, August 14, pp. 1-5, 10.
————. University and law courts. 18, May 1, pp. 2-3, 5.
————. University and law courts. 48, Nov 27, pp. 7-11.
Trivedi, Jyoti H. Future Images of women's universities. 32, August 7, pp. 5-9.
Varadacharyulu, N.C. Making the UGC more effective. 3, Jan 16, pp. 1-2.
Venkata Reddy, K. Criteria of academic excellence. 42, Oct 16, pp. 3-4.
————. English teaching in India. 21, May 22, pp. 1-2.
Venkateswaran, S. Financial management of private universities : A case study of BITS. 44, Oct 30, pp. 26-36.
Venugopal, A. Progress of education, medical education and the need for University of Health Sciences. 22, May 29, pp. 4-11.
Verma, Shivendra K. English in India : Problems and prospects. 9, Feb 27, pp. 1-3.
Verma, Yoginder Singh. University teacher in the contemporary society. 2, Jan 9, pp. 5-7.
Vijayalakshmi, B. Alcoholic de-addiction programme of Andhra University. 14, April 3, pp. 7-8.
Watson, Leonard E and Thakkar, Usha. The management development of women administrators : Some considerations 23, June 5, pp 15-16.
Yadav, R.S. Education in future tense. 34, August 21, pp. 1-3.